UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

SEP 22 2015

CERTIFIED MAIL 7009 1680 0000 7677 8800
RETURN RECEIPT REQUESTED

Mr. Larry Kandel
Director of Operations
Baerlocher USA, LLC
3676 Davis Road Northwest
Dover, Ohio 44622

Re: Notice of Violation
Compliance Evaluation Inspection
OHR000031567

Dear Mr. Kandel:

On August 4, 2015 representatives of the U.S. Environmental Protection Agency and Ohio Environmental Protection Agency inspected the Baerlocher USA facility located in Dover, Ohio (hereinafter "BUSA," "facility," or "you"). As a large quantity generator of hazardous waste, BUSA is subject to the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 *et seq.* ("RCRA"). The purpose of the inspection was to evaluate BUSA's compliance with certain provisions of RCRA and its implementing regulations related to the generation, treatment and storage of hazardous waste. A copy of the inspection report is enclosed for your reference.

Based on information provided by BUSA, EPA's review of records pertaining to BUSA, and the inspector's observations, EPA has determined that BUSA has unlawfully stored hazardous waste without a permit or interim status as a result of its failure to comply with certain conditions for a permit exemption under Ohio Admin. Code § 3745-52-34(A)-(C) [40 C.F.R. § 262.34(a)-(c)]. EPA has identified the permit exemption condition with which BUSA was out of compliance at the time of the inspection in paragraph 1, below.

Finally, EPA has determined that BUSA violated the RCRA requirement related to land disposal restriction recordkeeping, as described in paragraph 2, below.

STORAGE OF HAZARDOUS WASTE WITHOUT A PERMIT OR INTERIM STATUS

At the time of the inspection, BUSA was out of compliance with the following large quantity generator permit exemption condition:

1. Use and Management of Containers

Under Ohio Admin. Code 3745-52-34(C)(1)(b) [40 C.F.R. § 262.34(c)(1)(ii)], a generator may accumulate as much as 55 gallons of hazardous waste in containers ("satellite containers") at or near the point of waste generation which are under the control of the operator of the process generating the waste without a permit or interim status, as long as the satellite containers are marked with the words "Hazardous Waste" or with other words that identify the contents of the containers.

At the time of inspection, BUSA was accumulating hazardous waste in satellite containers in Building 31. Near a 55-gallon drum that was accumulating hazardous waste, BUSA was storing multiple sample jars of hazardous laboratory waste in a white plastic bucket. The bucket was not labeled as "Hazardous Waste" or with any other waste descriptors. A BUSA representative stated that the sample jars were intended to be emptied into the nearby 55-gallon drum. Later on the day of inspection, a photograph was provided that showed the sample jars had been drained into the 55-gallon drum and the bucket had been emptied. Thus, no further action is necessary to comply with this condition.

Summary: By failing to comply with the condition for a permit exemption, above, BUSA became an operator of a hazardous waste storage facility, and was required to obtain an Ohio hazardous waste storage permit. BUSA failed to apply for such a permit. BUSA's failure to apply for and obtain a hazardous waste storage permit violated the requirements of Ohio Admin. Code §§ 3745-50-45(A) and 3745-50-41(A) and (D) [40 C.F.R. §§ 270.1(c), and 270.10(a) and (d)].

OTHER VIOLATIONS

BUSA violated the following generator requirement:

2. Land Disposal Restriction Recordkeeping Requirements

Under Ohio Admin. Code 3745-270-07(A)(8) [40 C.F.R. § 268.7(a)(8)], a generator of a hazardous waste restricted from land disposal without further treatment must retain on-site copies of all notices, certifications, waste analysis data, and other documentation related to land disposal restrictions for at least three years from the date that the waste that is subject to such documentation was last sent to an off-site treatment, storage or disposal facility.

At the time of inspection, BUSA could provide only one land disposal restriction notification form for its laboratory pack hazardous waste stream. Copies of land disposal restriction notification forms that had been completed for the initial shipments of other

hazardous waste streams, including currently-generated wastewater, filter cake, and other liquid wastes, were not maintained on-site. On August 5, 2015, BUSA provided copies of the land disposal restriction notification forms associated with its hazardous waste wastewater, filter cake, and other liquid wastes. As long as these records are maintained on-site for at least three years after the final shipment of these hazardous wastes, no further action is necessary to comply with this requirement.

At this time, EPA is not requiring BUSA to apply for an Ohio hazardous waste storage permit so long as it maintains compliance with the condition for a permit exemption outline in paragraph 1, above.

During the inspection, as observed by EPA, and after the inspection, as documented in August 4 and 5, 2015 emails to EPA, you took certain actions to establish compliance with the above condition and recordkeeping requirement. Based on the information received from BUSA on August 4 and 5, EPA is not planning additional enforcement actions based on this inspection at this time. This letter does not limit the applicability of the requirements evaluated, or of other federal or state statutes or regulations. EPA appreciates BUSA's cooperation.

If you have any questions regarding this letter, please contact Mr. Brian Kennedy, of my staff, at (312) 353-4383 or at kennedy.brian@epa.gov.

Sincerely,

Gary J. Victorine, Chief
RCRA Branch

Enclosure

cc: Melody Stewart, Ohio EPA (melody.stewart@epa.ohio.gov)
Teri Finfrock, Ohio EPA (teri.finrock@epa.ohio.gov)

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 5, Land and Chemicals Division
RCRA Branch, LR-8J
77 West Jackson Boulevard
Chicago, Illinois 60604

COMPLIANCE EVALUATION INSPECTION REPORT

INSPECTION DATE:	August 4, 2015
SITE NAME:	Baerlocher USA, LLC
ADDRESS:	3676 Davis Road Northwest Dover, Ohio 44622
EPA ID NUMBER:	OHR000031567
GENERATOR STATUS:	Large Quantity Generator
NAICS CODE:	325199 All Other Basic Organic Chemical Manufacturing
FACILITY CONTACT:	Larry Kandel Director of Operations
EPA INSPECTOR:	Brian Kennedy Environmental Engineer Compliance Section 2 RCRA Branch Land and Chemicals Division

PREPARED BY: Brian Kennedy — **Brian Kennedy** — 8/21/2015 — **Date**

APPROVED BY: — **Julie Morris, Chief**
Compliance Section 2 — 8/25/15 — **Date**

Purpose of Inspection

An unannounced Compliance Evaluation Inspection ("CEI") of Baerlocher USA, LLC (hereinafter "BUSA" or "facility") located at 3676 Davis Road Northwest, Dover, Ohio took place on August 4, 2015. The CEI was conducted by U.S. Environmental Protection Agency and Ohio Environmental Protection Agency ("OEPA") personnel and was an evaluation of the facility's compliance with certain provisions of the Resource Conservation and Recovery Act ("RCRA") and its implementing regulations found in the Ohio Administrative Code and the Code of Federal Regulations. More specifically, the CEI was an evaluation of BUSA's compliance with the regulations governing large quantity generators of hazardous waste.

Participants

The following persons were present for part or all of the inspection:

Larry Kandel – Director of Operations	BUSA
James Moore – Health, Safety and Environment Director	DCC
Janice Austin – Environmental Manager	DCC
Ben Rohr – Environmental Coordinator	DCC
Melody Stewart – Environmental Specialist	OEPA
Brian Kennedy – Environmental Engineer	U.S. EPA

Introduction

I arrived on site at 9:00 AM EST and met with Melody Stewart of the OEPA. We entered the main office building and requested to see an environmental coordinator. We were led to Mr. Larry Kandel, BUSA's Director of Operations, who directed us to a nearby conference room. I presented Mr. Kandel my enforcement officer credentials and business card and provided the Small Business Resource and Pollution Prevention information sheets. I described the purpose of the U.S. EPA RCRA inspection and the process by which I would conduct the inspection, including a site tour that would involve photographs of hazardous waste storage areas as well as a review of BUSA records pertaining to hazardous waste. Mr. Kandel provided a summary of the site operations. Representatives of the Dover Chemical Corporation ("DCC"), which owns and operates all buildings on site, also joined the opening conference. They included Mr. James Moore, DCC's Health, Safety and Environmental Director, Ms. Janice Austin, DCC's Environmental Manager, and Mr. Ben Rohr, DCC's Environmental Coordinator.

I informed BUSA of their right to make a confidential business information claim over the information and documents collected during the inspection.

Site Description

The following information about BUSA is based on personal observations of the EPA inspector and on representations made during the inspection by facility personnel identified above or within the text unless otherwise specified.

BUSA specializes in producing heavy metal stabilizers for polyvinyl chloride (PVC) plastics. When PVC is manufactured, it undergoes high temperature processing that would otherwise burn or deform the material. BUSA's heavy metal stabilizers, which are viscous liquid additives, prevent damage to the PVC when this processing occurs. BUSA blends its stabilizers in a single production building that is located within the larger operations of the DCC. BUSA came to operate on DCC's property in 1990 under a contract to rent production and office space. BUSA's operations are a small portion of the chemical manufacturing processes conducted by DCC on the property. DCC itself produces a large variety of chemicals including alkyl phenols, chlorinated paraffins, polymer additives, and others.

BUSA currently has nine administrative employees on site, and contracts four additional employees from DCC for certain work. BUSA has four, 10-hour shifts Monday through Thursday. The production of heavy metal stabilizers occurs in Building 27A. The main office building is Building 32.

Wastes generated by BUSA in Building 27A include wastewaters from the stabilizer production process. This wastewater (characterized as D001, D005, and D006 hazardous waste) contains barium and cadmium metals as well as intermixed solvents. The solvents are decanted and the wastewater is accumulated in a steel tote. Every few days, the tote is taken to Building 1, where BUSA maintains a hazardous waste tank system. The tote is emptied into a second decanter to remove residual solvents, pumped to an interim tank, and then into a final storage tank. The interim tank has a capacity of 1,200 gallons and the storage tank can hold 4,500 gallons. The decanter and dual tank system is in secondary containment. Solvent that is decanted from the wastewater is accumulated as D001, D005 and D006 hazardous in satellite drums. Hazardous wastewater is drained from the tanks and taken off site by Enviroserve.

Other wastes generated in Building 27A include cross-contaminated liquids which are drained from processing equipment, carbon adsorption tower distillate, and filter cake and filter paper that is generated by filtering the final stabilizer to remove any contaminants before sale. These materials are also characterized by BUSA as D001, D005, and D006 hazardous waste. Drums of cross-contaminated liquids, adsorption tower distillate, and decanted solvents are taken to a 90-day storage area in the warehouse of Building 35 for storage. The filter cake and filter paper are placed in a covered roll-off box in the parking lot outside of Building 31. BUSA also generates waste samples of stabilizer from laboratory quality testing as well as occasional lab packs of various chemicals. These materials are accumulated as hazardous waste in Building 31. These hazardous wastes are taken off site by either American Waste Management or PennOhio.

As DCC manages and maintains all buildings on site, universal waste is kept in a DCC storage area. All hazardous wastes generated by DCC are stored separately from BUSA hazardous wastes. The Dover Fire Department has visited the site within the past year to evaluate both DCC and BUSA. Fire extinguishers are located throughout all buildings on site.

Site Tour

The site tour was led by Mr. Kandel. Ms. Austin and Mr. Rohr also joined. During the tour, Mr. Rohr conducted air monitoring to ensure that flash photography was safe in production areas.

The site tour began outside the south side of Building 27A. At the southwest corner of the building was a satellite drum accumulating hazardous waste carbon adsorption tower distillate (See Photo 1 in Attachment A: Inspection Photographs). The drum was labeled as D001, D005, and D006 hazardous waste and was closed. Distillate was draining into the drum through a fastened pipe. The drum was placed on a plastic containment system.

Moving inside Building 27A, Mr. Kandel briefly explained the BUSA production process. There was a satellite drum accumulating hazardous waste near the southwest entrance (See Photo 2). Mr. Kandel said it was accumulating cross-contaminated liquids from overhead equipment. The drum was also labeled as D001, D005, and D006 hazardous waste. A second drum next to this one also had a hazardous waste label, but was empty (See Photo 3). Mr. Kandel said this drum would take the place of the current satellite drum once it became full.

Over this satellite accumulation area was a raised production platform. Mr. Kandel led us onto the platform and pointed out BUSA's filter press, which generates waste filter cake and paper. The filter cake and paper drops through a chute and accumulates in a steel container below (See Photo 4). This container was marked as hazardous waste. Mr. Kandel said this container is emptied each day into a larger outdoor roll-off container near Building 31. In the corner of this same room was a large steel tote accumulating the excess process wastewater. The tote was marked as hazardous waste (See Photo 5). Mr. Kandel said BUSA generates roughly 5,000 gallons of the wastewater every six weeks. This tote is taken to the hazardous waste storage tank system to be emptied about once every two days.

Mr. Kandel led the tour to Building 1 to view the hazardous waste storage tank system. When the tote of wastewater from Building 27A is brought here, it is hooked up to a pump system and the liquid moves to a decanter. The decanter is marked as 213T (See Photo 6). Solvent removed from the wastewater as it moves through the decanter is accumulated in a nearby satellite accumulation drum (See Photo 7). This drum was labeled as D001, D005, and D006 hazardous waste. Past the decanter, the wastewater moves to Tank 214T, which acts primarily as extra storage capacity. This tank is normally kept empty (See Photo 8). The tank was marked as hazardous waste. After 214T, the wastewater is pumped to Tank 341T for storage (Photo 9). Mr. Kandel said that BUSA tracks its 90 day storage limit by dating and attaching a new hazardous waste label to Tank 341T every time wastewater is initially charged to the system. The decanter and tanks are all in a concrete secondary containment system (visible in Photos 7, 8, and 9), which appeared to be in good shape during the inspection.

On a steel catwalk over the tank system, Mr. Kandel described the overfill alarm systems present on both Tanks 214T and 341T. The roof of Tank 341T is in Photo 10. Photo 11 is the roof of Tank 214T. Mr. Kandel said the tank system was equipped with leak detection sensors and pointed to the electrical control box on a nearby wall. Looking in the secondary containment system it was unclear where the leak sensors were placed. Mr. Kandel said the tank system is inspected seven days per week and logs of these inspections are maintained.

The tour continued to Building 31 where BUSA maintains a small waste accumulation area. When empty totes of stabilizer are returned from customers, BUSA sprays the totes clean and accumulates the wash water in a satellite drum (See Photo 12). The drum was labeled as

hazardous waste. Mr. Kandel also said the drum accumulates waste laboratory samples that are generated on site. I opened an unlabeled bucket next to the drum. It contained many sample jars of laboratory waste (See Photo 13). Mr. Kandel said these sample jars were meant to be emptied into the satellite drum.

In the parking lot south of Building 31, Mr. Kandel directed us to the hazardous waste roll-off box that accumulated filter cake and paper generated in Building 27A (See Photo 14). The roll-off box was covered and appeared to be in good condition. It was labeled as hazardous waste and dated 7/1/2015. Mr. Kandel said BUSA generates about 10,000 pounds of the filter cake waste in a 90 day period.

Moving further south to Building 35, Mr. Kandel led to the tour to BUSA's 90-day hazardous waste storage area. The storage area was a designated spot in a larger warehouse space and waste inspection logs were kept nearby (See Photo 15). At the time of the inspection, BUSA was storing three drums in the area, all of which were waste solvents from Building 27A. The three drums were labeled as hazardous waste and all were dated 8/3/2015 (See Photo 16). Mr. Kandel said this waste is scheduled to be picked up by PennOhio.

The tour headed back to the main office to review records. No used oil or universal waste was observed during the inspection.

Record Review

I requested the following BUSA documents for review:

- Hazardous waste manifests for the previous three years as well as related land disposal restriction notification forms
- Waste profiles and laboratory reports for waste determinations
- BUSA's hazardous waste contingency plan
- Personnel training records related to hazardous waste management and emergencies
- Records related to BUSA's hazardous waste tank system, including the engineering assessment and inspection logs

A brochure containing a map of DCC and BUSA in Attachment B.

Mr. Kandel provided copies of hazardous waste training sessions that took place in 2015, 2014 and 2013. Mr. Kandel said he had undergone formal training in hazardous waste management and now provides that training to BUSA employees. Several example exams from these training sessions were reviewed.

The hazardous waste contingency plan was reviewed next. The plan states Mr. Kandel is the primary emergency coordinator on site, with John Dallatore as the backup. The plan makes note of the evacuation routes on site, and provides a list of available emergency equipment, its location, and a description of its capabilities. BUSA has mailed copies of its plan to local authorities.

Mr. Kandel provided copies of laboratory reports BUSA used to make its waste determinations. A report for the filter cake from 1997 shows the material is hazardous for both barium and cadmium. Similarly, a report for the waste solvent shows the material is hazardous for its cadmium content. Mr. Kandel provided two reports for the process wastewater. The most recent report (2008) only appeared to have a total metals analysis, which showed high levels of cadmium and barium. However, an older report from 1997 for the process water was a TCLP analysis, and both barium and cadmium were below TCLP limits. Ms. Stewart and I discussed with Mr. Kandel that BUSA should have another TCLP analysis done on its wastewater to determine if it's truly a hazardous waste. The reports are in Attachment C.

Three years of hazardous waste manifests were reviewed. The most recent manifest was dated 7/28/2015, and displayed the shipment of 14 drums of D001, D005, and D006 hazardous waste to PennOhio. Prior to this, a manifest from 6/28/2015 displayed the shipment of the filter cake roll-off box. The manifests reviewed appeared complete and all had signed copies from the disposal facility. Only one land disposal restriction form was seen for a lab-pack shipment. I asked Mr. Kandel where land disposal restriction forms were located for the other BUSA waste streams. He said he wasn't sure, but that he could get copies from the TSDs.

Mr. Kandel provided hazardous waste storage tank inspection logs, which had been kept in a handwritten notebook. The condition of the tanks and any potential leaks were recorded daily for the decanter (213T), the interim tank (214T) and the primary storage tank (341T). Several years' worth of inspections were reviewed. Mr. Kandel also provided the Professional Engineering assessment for the tank system, which is in Attachment D.

Closing Conference

I summarized my review of the site and potential issues to Mr. Kandel, Ms. Austin, and Mr. Rohr. These included:

- The management of waste laboratory samples that were found in an unlabeled bucket in Building 31
- Maintaining copies of land disposal restriction notification forms on site for all waste streams
- Retesting the process wastewater to see if it remains a hazardous waste for barium and cadmium content

I showed Mr. Kandel the photographs I took during the site tour.

Mr. Kandel did not make a confidential business information claim over the information or materials collected during the inspection.

The inspection ended at approximately 11:30 AM.

Inspection Follow-Up

On the same day of the inspection, Mr. Kandel emailed a photograph of the satellite accumulation area in Building 31 which shows the sample jars had been emptied into the 55-gallon drum.

On August 5, 2015, Mr. Kandel sent a second email that contained the land disposal restriction notification forms for its filter cake, liquid wastes, and process wastewater.

These documents are provided in Attachment E.

Attachments

A. Inspection Photographs
B. Facility Map
C. Analytical Reports
D. Tank Assessment
E. Follow-Up Documents
F. Inspection Checklists

ATTACHMENT A: Inspection Photographs

Photographs were taken by Brian Kennedy using a Canon PowerShot A2400 IS Digital Camera.

RCRA Photo Log

Photo	Description	Time (CST)
1	Satellite accumulation drum collecting carbon tower distillate outside the southwest corner of Building 27A.	9:04 AM
2	Satellite accumulation drum in Building 27A accumulating waste solvent.	9:07 AM
3	An empty drum that will replace the satellite drum in Photo 2.	9:08 AM
4	Accumulation container for the filter cake and paper in Building 27A.	9:11 AM
5	A steel tote accumulating process wastewater in Building 27A.	9:12 AM
6	The decanter Tank 213T as part of the hazardous waste storage tank system in Building 1.	9:18 AM
7	The satellite accumulation drum in Building 1 that collects waste solvent from the decanter.	9:18 AM
8	The interim hazardous waste storage Tank 214T in Building 1.	9:19 AM
9	The primary hazardous waste storage Tank 341T in Building 1.	9:19 AM
10	The roof of Tank 341T.	9:21 AM
11	The roof of Tank 214T.	9:21 AM
12	Satellite accumulation drum in Building 31 accumulating waste wash water.	9:32 AM
13	A bucket of waste laboratory samples of stabilizer that were to be emptied into the drum in Photo 12.	9:34 AM
14	The hazardous waste filter cake and paper roll-off box in the lot south of Building 31.	9:36 AM
15	The 90-day hazardous waste storage area in Building 35.	9:42 AM
16	The three drums of hazardous waste solvent in the 90-day storage area. All drums were labeled and dated.	9:41 AM

Baerlocher USA, LLC
OHR000031567
August 4, 2015

Photo 1:

Photo 2:

Photo 3:

Photo 4:

Photo 5:

Photo 6:

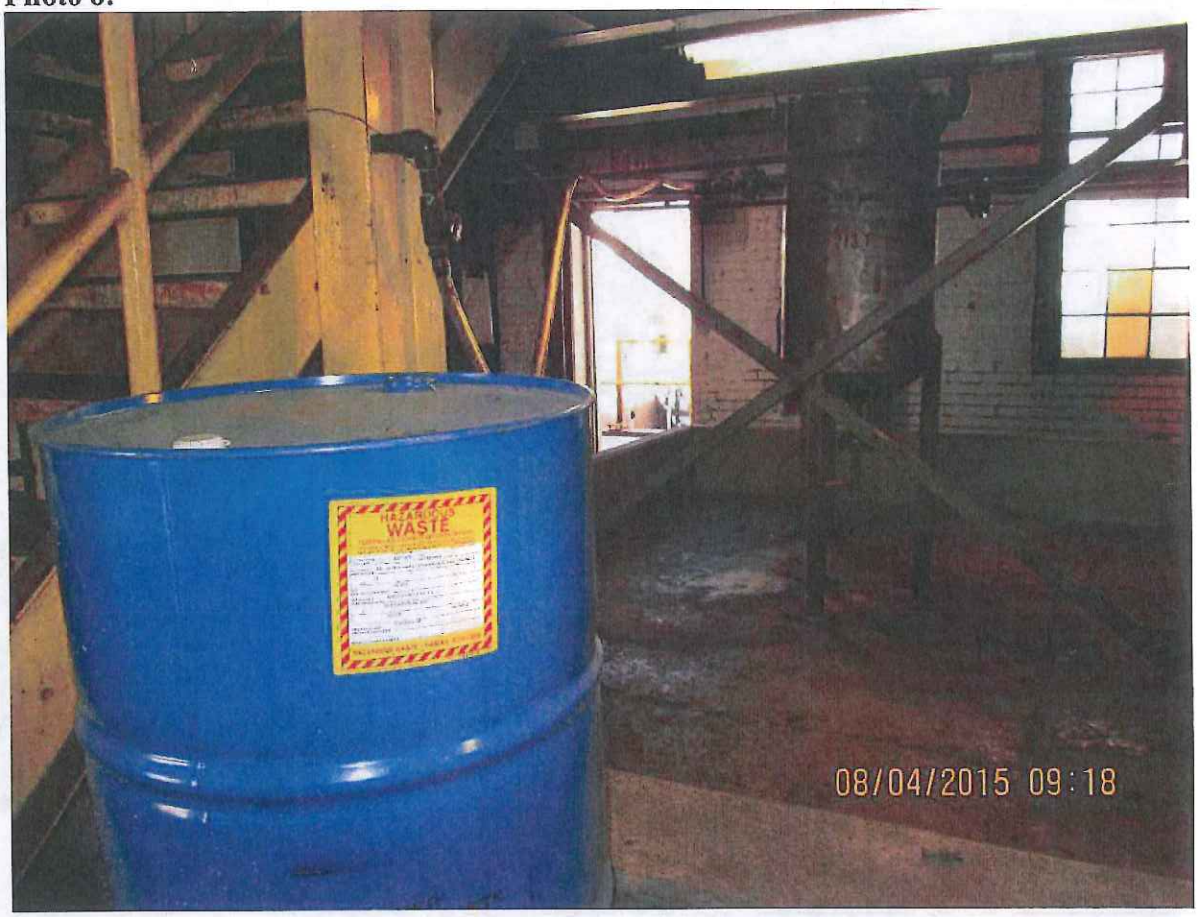


Photo 7:

Photo 8:

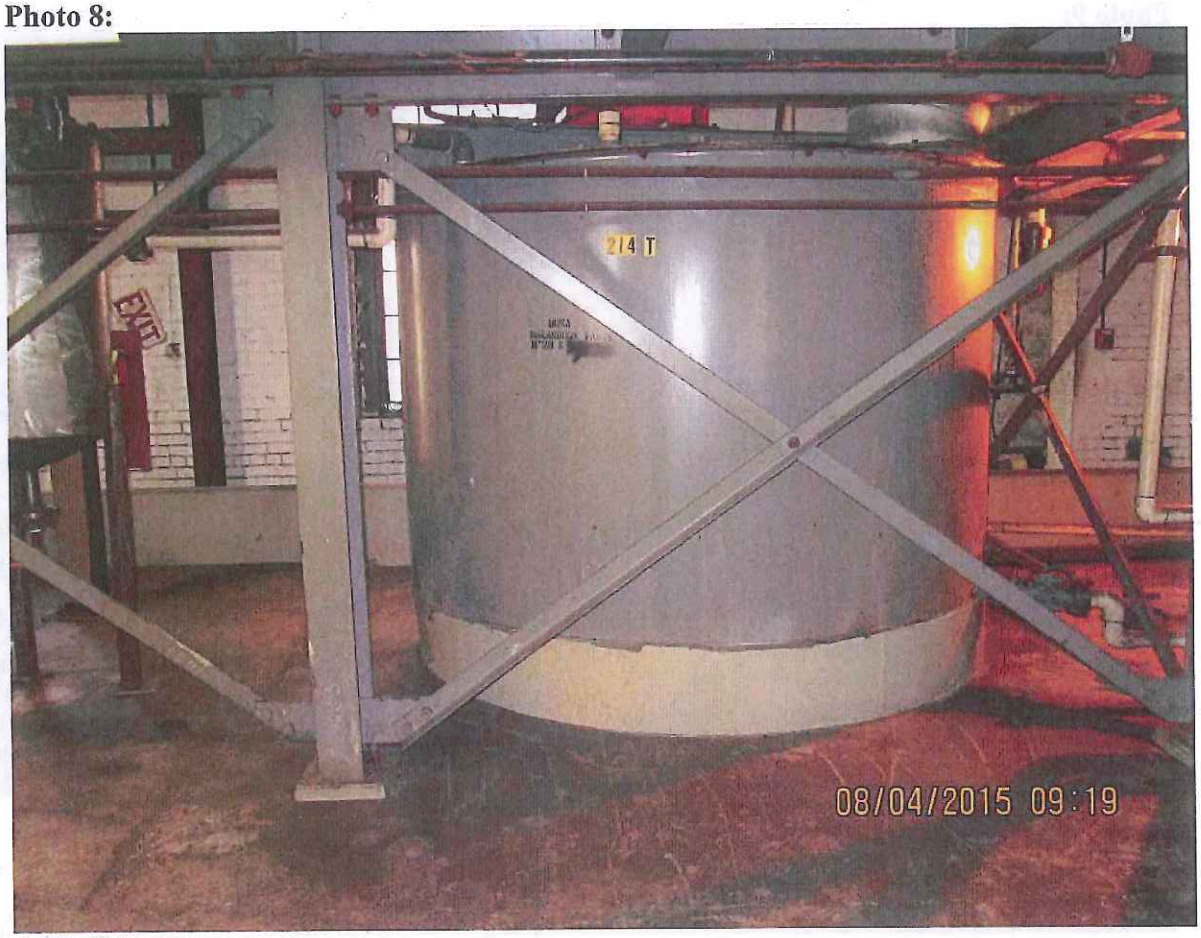


Photo 9:

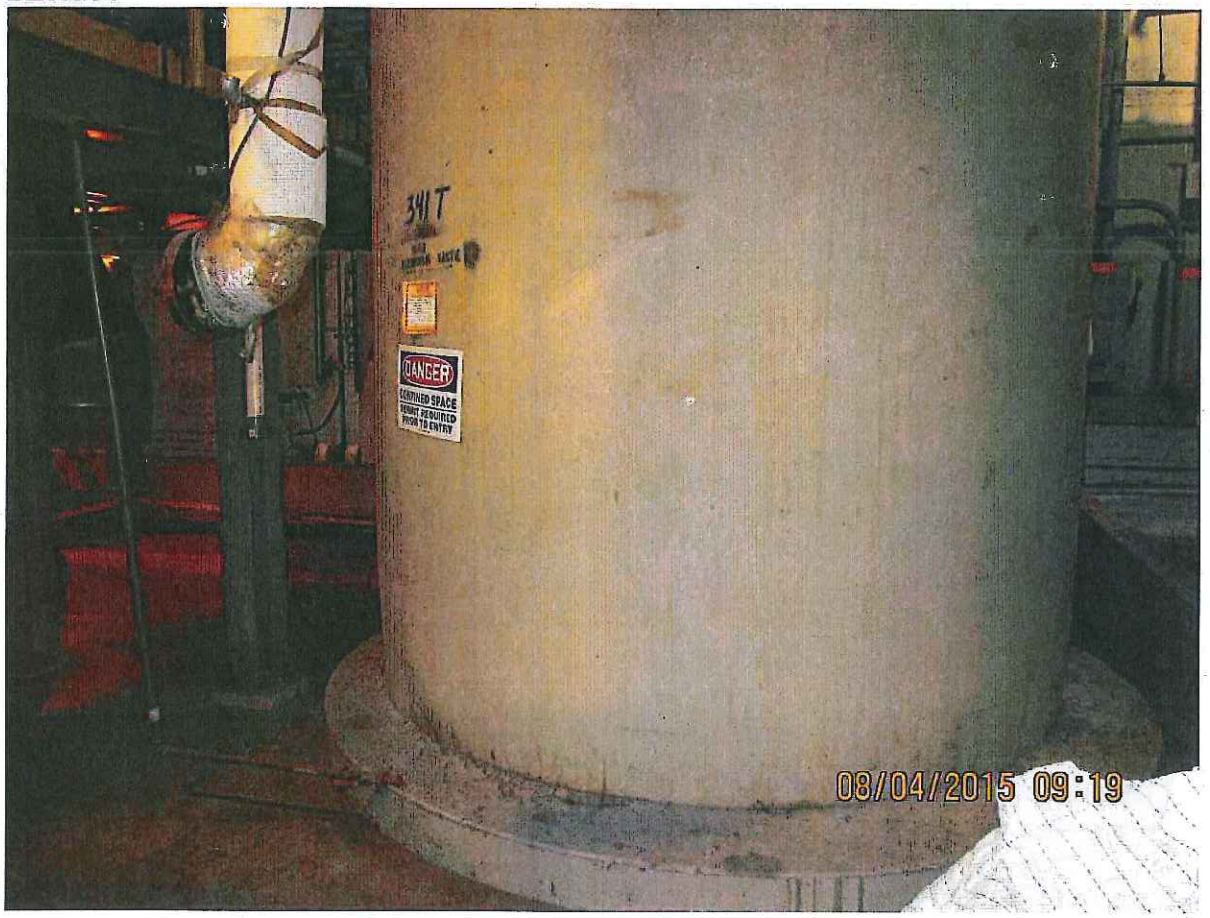

341 T
DANGER
CONFINED SPACE
PERMIT REQUIRED
PRIOR TO ENTRY
08/04/2015 09:19

Photo 10:

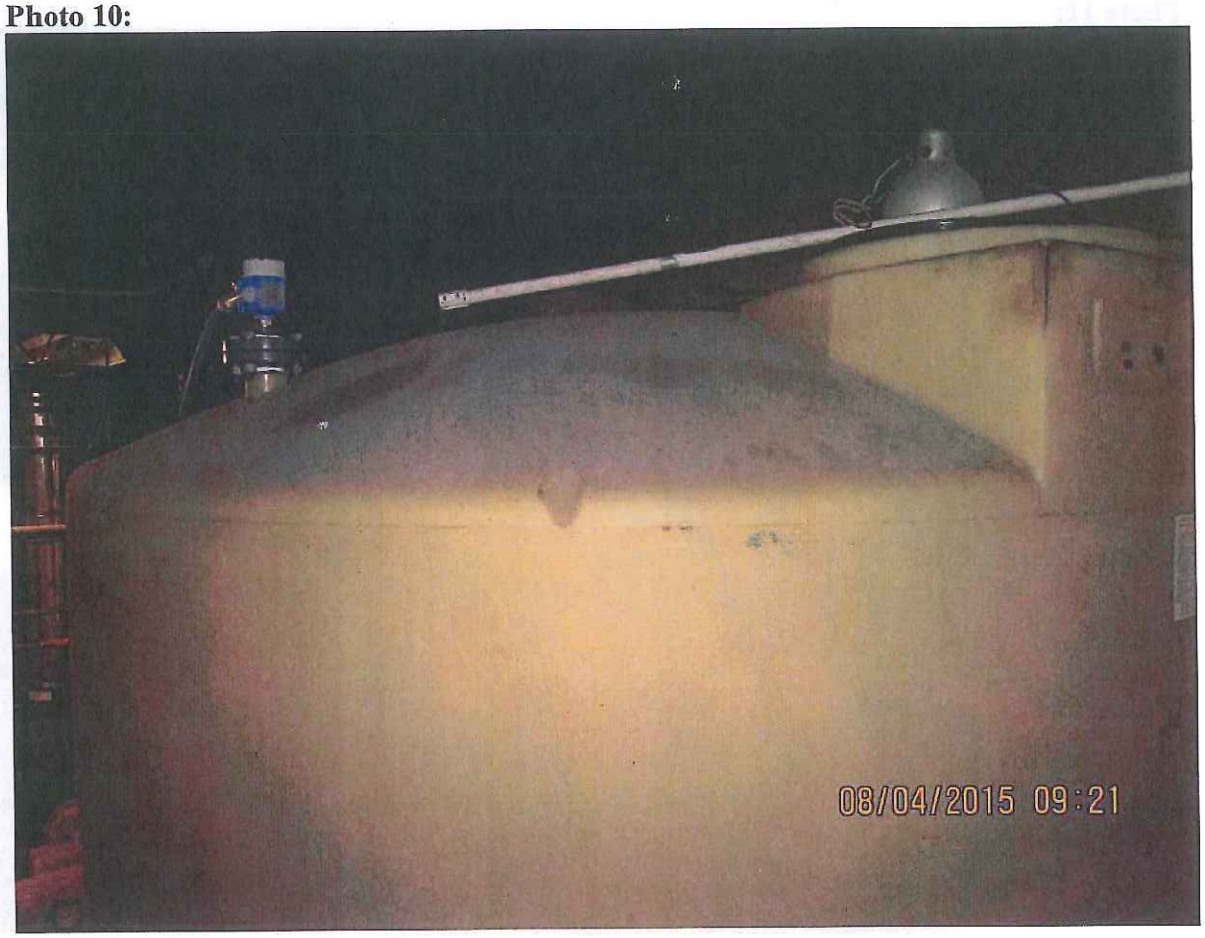


Photo 11:

Photo 12:

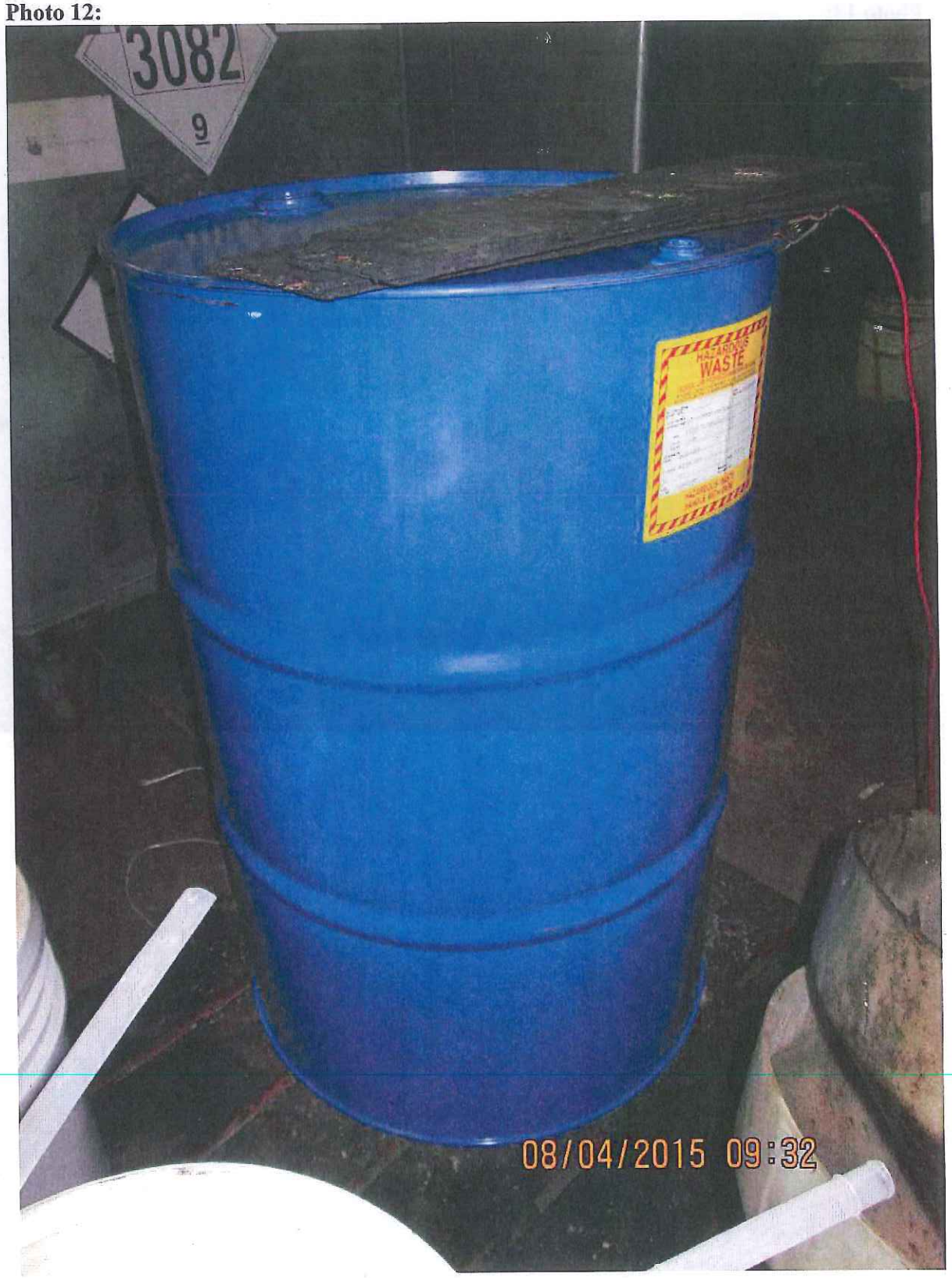


Photo 13:

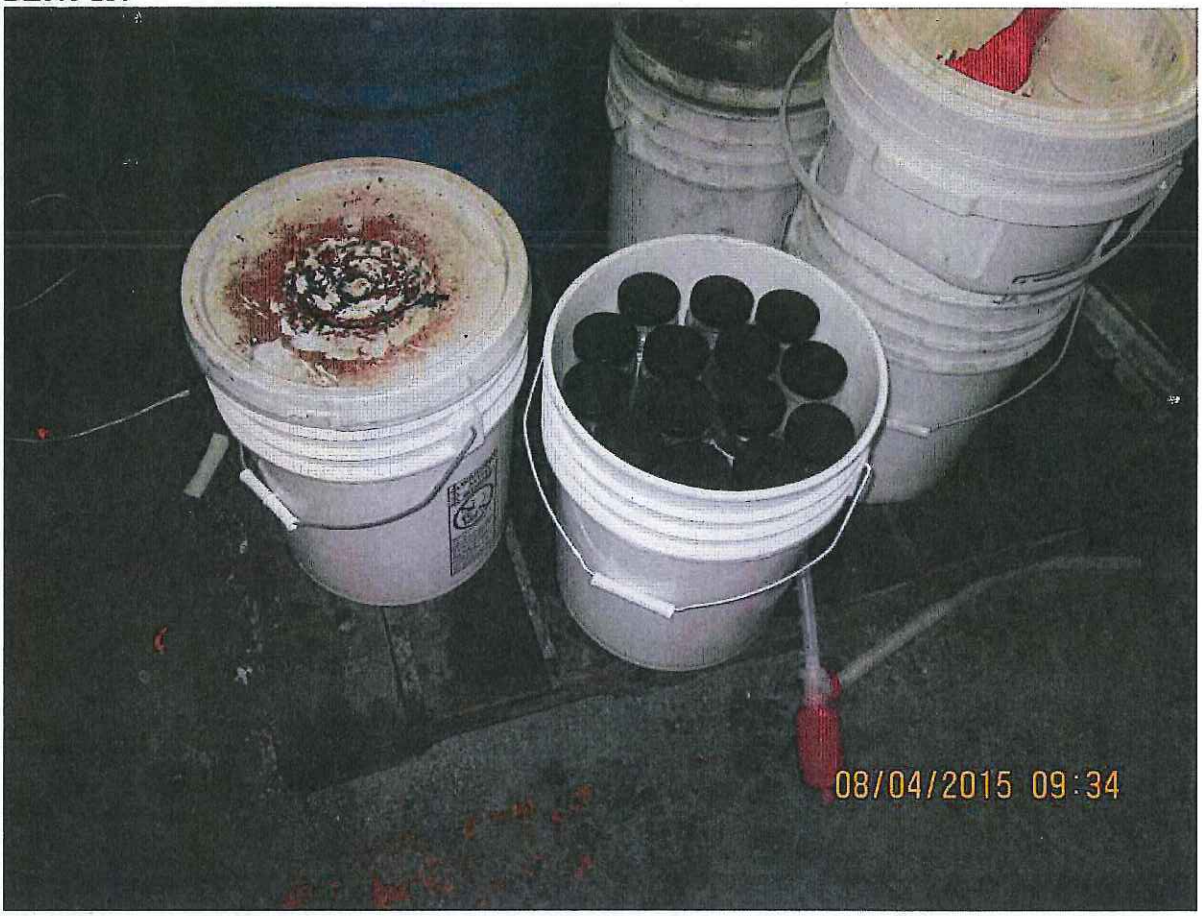


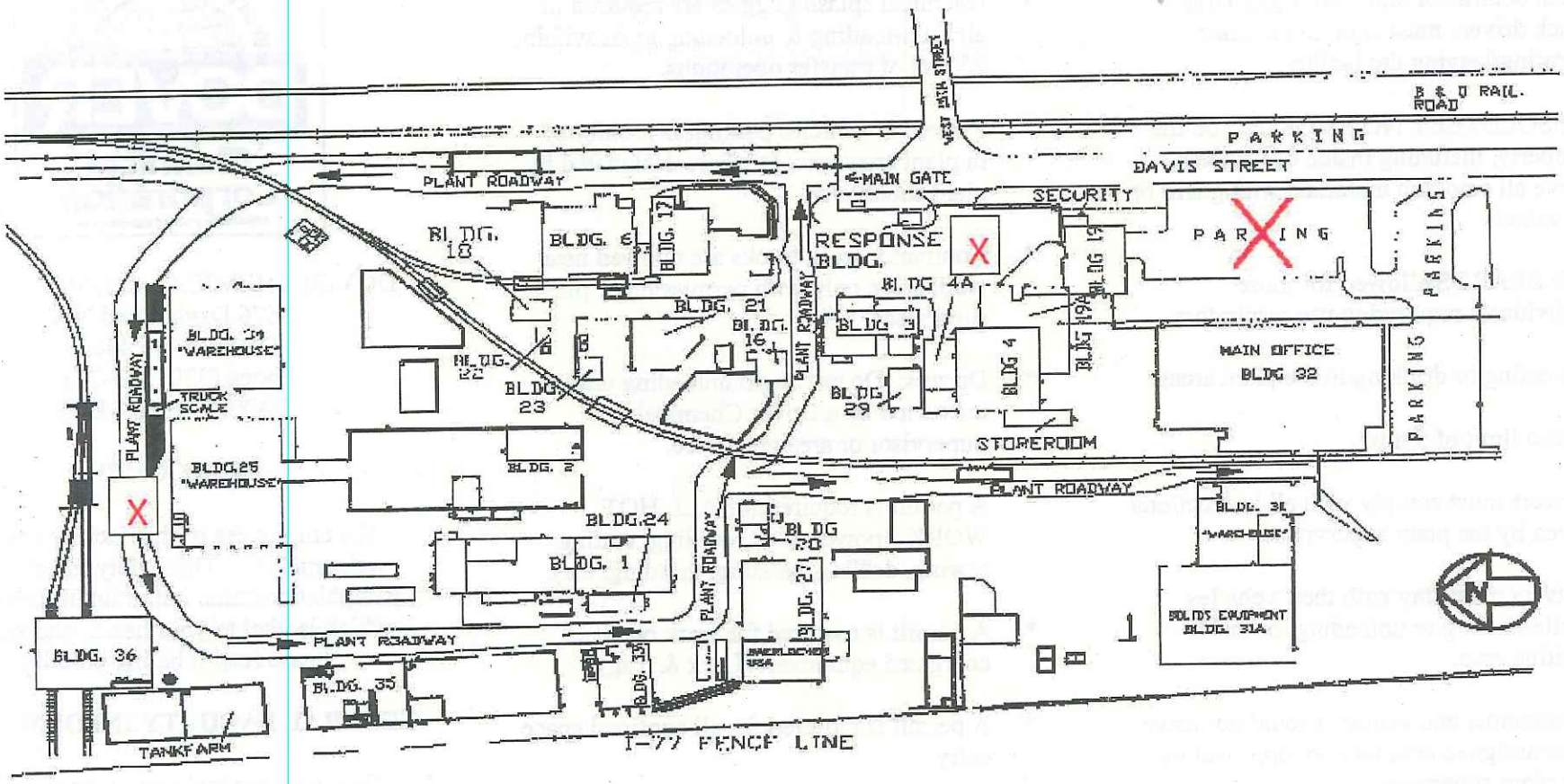
Photo 14:

Photo 15:


ZARDOUS
WASTE
STORAGE
NO
SMOKING
HAZARDOUS
WASTE
90 DAY STORAGE
AREA
NO
SMOKING
08/04/2015 09:42

Photo 16:

ATTACHMENT B: Facility Map



EMERGENCY ALARM ANNOUNCEMENTS

- √ Announcements will be made over the telephone public address system stating the nature of the emergency.
- √ Assemble at evacuation assembly point, DO NOT LEAVE ASSEMBLY POINT UNTIL ACCOUNTED FOR AND INSTRUCTED TO DO SO.
- √ Contractor foreman are responsible for accounting for all of their employees and reporting to the Emergency Coordinator.
- √ Do not enter plant in event of emergency
- √ Evacuation assembly point X

FACILITY RULES

* Each contractor and visitor including truck drivers must sign in/out when entering/leaving the facility.

* ABSOLUTELY NO SMOKING on the property, including inside of vehicles, leave all smoking materials with guard or in vehicle.

* NO BEARDS allowed for those individuals required to use respirators..

* No eating or drinking in the plant areas.

* Speed limit of 5 mph.

* Drivers must comply with all instructions given by the plant supervisor.

* Drivers must stay with their vehicles while loading or unloading, or inside waiting area.

* Contractors and visitors should not leave their assigned area without approval by the plant supervisor.

* Hard hats, safety glasses, with side shields, closed-toed shoes and long sleeve shirt and pants are required everywhere except offices, lunchroom and restrooms.

* No cell phone use allowed in the operational areas/shipping of the plant.

rules continued on next page➔

FACILITY RULES (cont.)

* Chemical splash goggles are required in all bulk-loading & unloading areas within 25 feet of transfer operations.

* Passenger vehicles parking is prohibited in plant areas except where designated by plant supervisor.

* Contractor work trucks are allowed near work areas only with permission of plant supervisor.

* Drivers: Do not begin unloading until so instructed by a Dover Chemical Supervisor or area employee.

* A permit is required for ALL HOT WORK, (power tools, welding, cutting, sawing, drilling, sanding, grinding, etc).

* A permit is required for work on all energized equipment (Lock & Tag).

* A permit is required for all confined space entry.

* If an emergency occurs, stop loading, or unloading, close valves at truck and tank, shut-off pumps and evacuate to assembly area. DO NOT ATTEMPT TO MOVE VEHICLES.

* Assembly area is noted on the plot plan.

* The use of cameras including cellular cameras is allowed by permission only.

DOVER CHEMICAL CORPORATION
3676 Davis Road NW
Dover, Ohio 44622
Phone (330) 343-7711
FAX (330) 364-1579

WELCOME!

The employees of this facility wish to welcome you. This safety information pamphlet contains important information which is vital to your health and safety. Please read it before entering.

GENERAL FACILITY INFORMATION

* This is a chemical manufacturing facility.

* Characteristics of chemicals at this site may be:

FLAMMABLE
COMBUSTIBLE
CORROSIVE
POISONOUS

REMEMBER
SAFETY FIRST WITH CHEMICALS

Material Safety Data Sheets
are available for all chemicals on site.
If you have any questions, ask a
Dover Chemical employee.

ATTACHMENT C: Analytical Reports

Date : 2/10/97

Date Received : 2/03/97
Date Analyzed : 2/6-7/97

Analysis For : Trans-Enviro, Inc.

TRANS-ENVIRO # : 970203-04-A

Customer I.D. : Baerlogher

CHARACTERISTIC of TCLP
METALS

ELEMENT/(EPA HW No.[1])		DL mg/L	RL mg/L	RESULTS mg/L
Arsenic	(D004)	0.180	5.0	BDL
Barium	(D005)	0.009	100.0	[illegible]
Cadmium	(D006)	0.008	1.0	0.30
Chromium	(D007)	0.009	5.0	BDL
Lead	(D008)	0.084	5.0	BDL
Mercury	(D009)	0.0005	0.2	BDL
Selenium	(D010)	0.190	1.0	BDL
Silver	(D011)	0.004	5.0	BDL

RL = Regulatory Limit

DL = Detection Limit

BDL = Below Detection Limit

1 = Hazardous Waste Number

Methods : Extraction - EPA SW 846(1311)
Mercury - EPA SW 846(7470)
Other metals - EPA SW 846(6010)

TRANS-ENVIRO ANALYTICAL SERVICES, INC.
19711 SOUTH MILES ROAD, WARRENSVILLE HEIGHTS, OHIO 44128
TEL: (216) 663-0808 • FAX: (216) 663-0656

Cash in Advance / Prepaid Sales

Client Sample ID: PROCESS WATER

TOTAL Metals

Lot-Sample #...: A8G140188-001 Matrix.....: WG
Date Sampled...: 07/14/08 10:00 Date Received..: 07/14/08

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 8197016						
Arsenic	21.8	10.0 Dilution Factor: 1	ug/L	SW846 6010B	07/15-07/16/08	KRG8F1AC
Barium	14400	200 Dilution Factor: 1	ug/L	SW846 6010B	07/15-07/16/08	KRG8F1AF
Cadmium	5310	25.0 Dilution Factor: 5	ug/L	SW846 6010B	07/15-07/16/08	KRG8F1AG
Lead	ND	3.0 Dilution Factor: 1	ug/L	SW846 6010B	07/15-07/16/08	KRG8F1AD
Chromium	ND	10.0 Dilution Factor: 1	ug/L	SW846 6010B	07/15-07/16/08	KRG8F1AH
Selenium	6.9	5.0 Dilution Factor: 1	ug/L	SW846 6010B	07/15-07/16/08	KRG8F1AE
Silver	ND	10.0 Dilution Factor: 1	ug/L	SW846 6010B	07/15-07/16/08	KRG8F1AJ
Mercury	ND	0.20 Dilution Factor: 1	ug/L	SW846 7470A	07/15/08	KRG8F1AK

American Waste Management Services Inc

Client Sample ID: BUSA SOLVENT

TCLP Metals

Lot-Sample #...: A1B030556-002 Matrix.....: LH
Date Sampled...: 02/02/11 13:15 Date Received..: 02/03/11
Leach Date.....: 02/07/11 Leach Batch #..: P103807

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1039016						
Arsenic	ND	0.50	mg/L	SW846 6010B	02/08-02/11/11	MD2FV1AE
		Dilution Factor: 1				
Barium	ND	10.0	mg/L	SW846 6010B	02/08-02/11/11	MD2FV1AM
		Dilution Factor: 1				
Lead	ND	0.50	mg/L	SW846 6010B	02/08-02/11/11	MD2FV1AF
		Dilution Factor: 1				
Cadmium	4.0	0.50	mg/L	SW846 6010B	02/08-02/11/11	MD2FV1AN
		Dilution Factor: 1				
Selenium	ND	0.50	mg/L	SW846 6010B	02/08-02/11/11	MD2FV1AG
		Dilution Factor: 1				
Chromium	ND	0.50	mg/L	SW846 6010B	02/08-02/11/11	MD2FV1AP
		Dilution Factor: 1				
Silver	ND	0.50	mg/L	SW846 6010B	02/08-02/11/11	MD2FV1AQ
		Dilution Factor: 1				
Mercury	ND	0.033	mg/L	SW846 7471A	02/08-02/14/11	MD2FV1AH
		Dilution Factor: 1				

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Date : 7/09/97

Date Received : 6/25/97
Date Extracted: 7/01/97
Date Analyzed : 7/02/97

Analysis For : Dover Chemical

TRANS-ENVIRO # : 970625-11-A

Customer I.D. : Barnlocker Filter

CHARACTERISTIC of TCLP METALS

ELEMENT/(EPA HW No.[1])		DL mg/L	RL mg/L	RESULTS mg/L
Arsenic	(D004)	1.80	5.0	BDL
Barium	(D005)	90	100.0	968
Cadmium	(D006)	0.08	1.0	3.88
Chromium	(D007)	0.09	5.0	BDL
Lead	(D008)	0.84	5.0	BDL
Mercury	(D009)	0.0003	0.2	BDL
Selenium	(D010)	1.90	1.0	BDL
Silver	(D011)	0.04	5.0	BDL

RL = Regulatory Limit

DL = Detection Limit

BDL = Below Detection Limit

1 = Hazardous Waste Number

Methods : Extraction - EPA SW 846(1311)
Mercury - EPA SW 846(7470)
Other metals - EPA SW 846(6010)

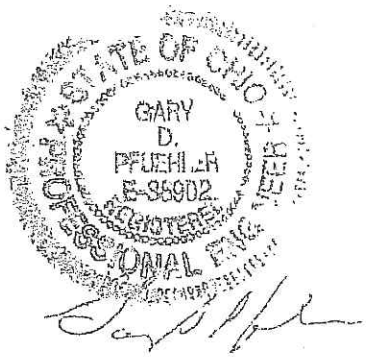
TRANS-ENVIRO ANALYTICAL SERVICES, INC.
19701 SOUTH MILES ROAD, WARRENSVILLE HEIGHTS, OHIO 44128
TEL: (216) 663-0808 • FAX: (216) 663-0656

ATTACHMENT D: Tank Assessment

TSS, Inc.
Technical Solutions Specialists, Inc.
4203 Malsbary Rd.
Cincinnati, OH 45242

Project No.:16488

PROJECT MEMORANDUM



DATE: April 22, 2008

PROJECT: Baerlocher Wastewater Tanks

TO: File

FROM: TSS, Inc.

SUBJECT: Tank & Foundations Analysis

DISTRIBUTION:

Analysis of Wastewater Tanks Installation

1. Background

Wastewater collected in the Baerlocher process contains organic mineral spirits and levels of cadmium, barium, and zinc which result in a hazardous waste classification. Tanks #213, 214 were installed in 1990 to separate the organic fractions and treat the wastewater to remove metals. #341 Tank was installed in 1998. #214 Tank had been used to add sodium hydroxide and acid, then the water was filtered to remove the precipitated metals. However, the treated wastewater still had residual metals higher than the threshold, and was still classified as hazardous waste. The treatment portion of the process was subsequently abandoned, and the filter press has been isolated from the system. The three tanks are still in service, but other than the decant step in #213, there is no further treatment being done. #213 Tank is used to decant the organics from the wastewater, and #341is the storage/collection tank. The decanted wastewater is slightly alkaline, at about 8.0-8.5 pH. Due to the fact that the original design called for exposure to acid, alkali, and organics, the materials of construction of the tanks was selected accordingly. #213 Tank in vertical cylindrical with a cone bottom and flat top. It is supported by four legs. Capacity is 60 gallons (2 ft diameter x 3.33 ft straight side), and is constructed of 304 stainless steel. The shell, top head and cone bottom are ¼" thick. Design was ambient temperature and atmospheric pressure. #214 Tank is vertical cylindrical with flat top and bottom heads. The tank sets on a concrete pad. Capacity is 1200 gallons (8 ft diameter x 5 ft straight side), and is constructed of carbon steel with 16 mil Plasite 7310 coal tar epoxy lining. The shell thickness was not indicated in the file drawings, but it was indicated there was a 1/16" corrosion allowance included for design at ambient temperature and atmospheric pressure. #341 Tank is vertical cylindrical with dome top and flat bottom. It also sits on a concrete pad. Capacity is 6500 gallons (7.9 ft diameter x 11.6 ft straight side), and is constructed of HDPE (high density polyethylene). Shell thickness not indicated on drawing, but documentation indicates the tank was designed for 1.5 specific gravity liquid, atmospheric pressure and ambient temperature. All three tanks are located in building #1, and are not exposed to outdoor conditions. As such there is no corrosion of the tank's to soil conditions, nor is there is no exposure to atmospheric corrosive conditions within the building.

II. Piping and pump systems

In considering the piping/pump system, consideration must be given to the treatment process (discontinued), which utilized acid and caustic in Tank #214. In reviewing this, TSS recommends replacing the outlet 2" diaphragm valve and the inlet elbow fitting on top of #214 (where effluent from Tank #213 enters). These items are either of carbon steel or of unknown condition. TSS inspected the remainder of the piping/pump systems and these systems are suitable for the containment of the wastewater based on visual inspection, prior service, and the compatibility of the piping with the chemicals exposure (past and present).

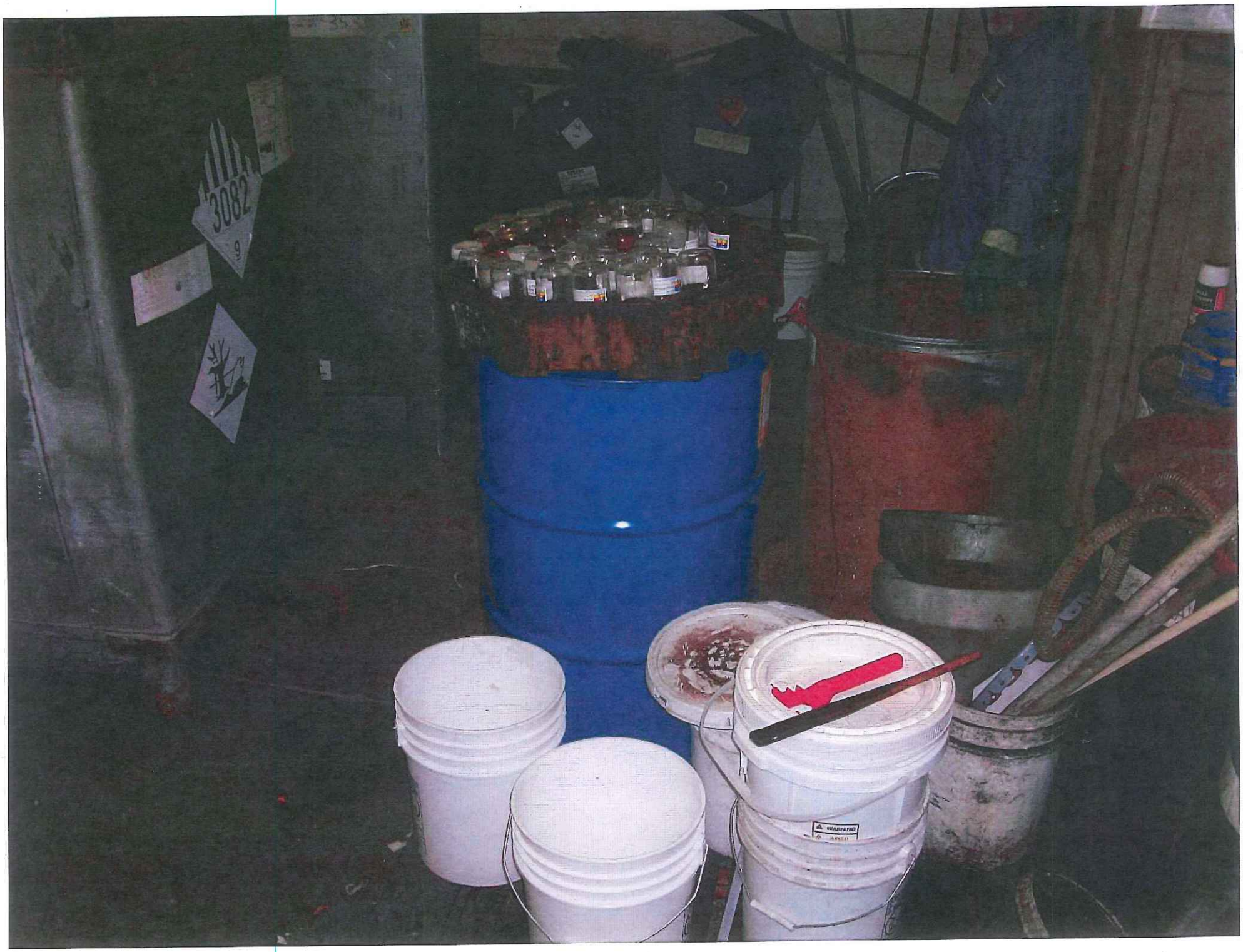
III. Tank and Foundations Evaluations

These tanks will hold the wastewater material prior to loadout and disposal as hazardous waste. The analysis of the decanted wastewater indicates there are no corrosive qualities to this effluent. This was confirmed in field observations: the tanks are in very good condition, with no sign of corrosion, cracks, etc. Inspection of the existing concrete floor slab and tank foundations revealed no defects (i.e.- cracks) and no leakage points. There are no visible defects on the tanks; all of the tanks described herein contain materials of construction that are corrosion resistant to the wastewater.

IV. Conclusions

In reviewing the #213, 214, and 341 tank construction and installation, concrete foundations, and proposed operating conditions, TSS Engineering is satisfied that these tanks and supporting concrete foundations/slab are suitable for the proposed wastewater storage. The piping/pump systems are in good condition, with no defects or leaks. The elbow and valve cited in section II should be replaced with PVC. There are no external corrosive conditions to the tanks or concrete structures. Prior to any changes in operating conditions (i.e. - chemical treatment to remove metals), the lining in #214 Tank and the #379 Pump should be inspected.

ATTACHMENT E: Follow-Up Documents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Filter Cake

US ecology

LAND DISPOSAL RESTRICTION AND CERTIFICATION FORM

Generator: BAERLOCHER U.S.A.
3676 DAVIS RD

U.S. EPA ID No.: OHR000031567

Manifest: .

Page - Line
1 - 01 Approval: DF051580 NWW

Waste Code(s): D005 D006

Hazardous Constituents: NONE

Subcategory(s): None

Certification: THIS RESTRICTED WASTE REQUIRES TREATMENT TO THE APPLICABLE STANDARD.
This waste must be treated to the applicable performance based treatment standard set forth in 40CFR Part 268 Subpart C and Subpart D, 268.40 or RCRA Section 3004(d) prior to land disposal.

I hereby certify that all information submitted on this and all associated documents, is complete and accurate to the best of my knowledge and information.

Generator Signature: [signature] Title: Director of Ops

Printed Name: Larry A. Kanbel Date: 20150804

For questions regarding this form, please call Customer Service at (800) 592-5489.

Liquid Waste

US ecology

LAND DISPOSAL RESTRICTION AND CERTIFICATION FORM

Generator: BAERLOCHER U.S.A.
3676 DAVIS RD

U.S. EPA ID No.: OHR000031567

Manifest:

Page - Line
1 - 01 Approval: IM056420 NWW

Waste Code(s): D001 D005 D006

Hazardous Constituents: NONE

Subcategory(s): D001 - High TOC Ignitable Characteristic Liquids Subcategory

Certification: THIS RESTRICTED WASTE REQUIRES TREATMENT TO THE APPLICABLE STANDARD.
This waste must be treated to the applicable performance based treatment standard set forth in 40CFR Part 268 Subpart C and Subpart D, 268.40 or RCRA Section 3004(d) prior to land disposal.

I hereby certify that all information submitted on this and all associated documents, is complete and accurate to the best of my knowledge and information.

Generator Signature: _____ Title: Director of Ops

Printed Name: Larry A. Kendel Date: 20150604

For questions regarding this form, please call Customer Service at (800) 592-5489.

Ignitable Characteristic

US ecology

LAND DISPOSAL RESTRICTION AND CERTIFICATION FORM

Generator: BAERLOCHER U.S.A.
3676 DAVIS RD

U.S. EPA ID No.: OHR000031567

Manifest:

Page - Line
1 - 01 **Approval:** IM055429 NWW

Waste Code(s): D001 D005 D006

Hazardous Constituents: NONE

Subcategory(s): D001 - High TOC Ignitable Characteristic Liquids Subcategory

Certification: THIS RESTRICTED WASTE REQUIRES TREATMENT TO THE APPLICABLE STANDARD.
This waste must be treated to the applicable performance based treatment standard set forth in 40CFR Part 268 Subpart C and Subpart D, 268.40 or RCRA Section 3004(d) prior to land disposal.

I hereby certify that all information submitted on this and all associated documents, is complete and accurate to the best of my knowledge and information.

Generator Signature: _____ **Title:** Director of Ops

Printed Name: Larry A Fendel **Date:** 20150804

For questions regarding this form, please call Customer Service at (800) 592-5489.

Waste Water

6/13/12 LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM (PHASE IV) VIC-VB5406

Generator Name: BAERLOCHER USA Manifest Doc. No.: _____

Profile Number: VB5406 State Manifest No: _____

1. Is this waste a non-wastewater or wastewater? (See 40 CFR 268.2) Check ONE: Nonwastewater _ Wastewater X
2. Identify ALL USEPA hazardous waste codes that apply to this waste shipment, as defined by 40 CFR 261. For each waste code, identify the corresponding subcategory, or check NONE if the waste code has no subcategory. Spent solvent treatment standards are listed on the following page. If F039, multi-source leachate applies, those constituents must be listed and attached by the generator. If D001-D043 requires treatment of the characteristic and meet 268.48 standards, then the underlying hazardous constituent(s) present in the waste must be listed and attached.

REF #	3. US EPA HAZARDOUS WASTE CODE(S)	4. SUBCATEGORY ENTER THE SUBCATEGORY DESCRIPTION, IF NOT APPLICABLE, SIMPLY CHECK NONE		5. HOW MUST THE WASTE BE MANAGED? ENTER LETTER FROM BELOW
		DESCRIPTION	NONE	
1	D005	CWA, CLASS 1 MANAGED		A
2	D006	CWA, CLASS 1 MANAGED		A
3				
4				

To identify F039 or D001-D043, underlying hazardous constituent(s), use the "F039/Underlying Hazardous Constituent Form" provided (CWM-2004) and check here:
If no UHCs are present in the waste upon its initial generation check here: X
To list additional USEPA waste code(s) and subcategorie(s), use the supplemental sheet provided (CWM-2005-D) and check here:
Disposal facility monitors for all UHCs check here _
If waste will be managed in a system regulated under the CWA, or a Class 1 injection well under the SDWA check here

HOW MUST THE WASTE BE MANAGED? In column 5 above, enter the letter (A, B1, B3, B4, B5, B6, C, D or E) below that describes how the waste must be managed to comply with the land disposal regulations (40 CFR 268.7). Please understand that if you enter the letter B1, B3, B4, B5, B6, or D you are making the appropriate certification as provided below. (States authorized by EPA to manage the LDR program may have regulatory citations different from the 40 CFR citations listed below. Where these regulatory citations differ, your certification will be deemed to refer to those state citations instead of the 40 CFR citations.

A. RESTRICTED WASTE REQUIRES TREATMENT
This waste must be treated to the applicable treatment standards set forth in 40 CFR 268.40.
For Hazardous Debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR 268.45."

B.1 RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 40 CFR 268.40 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.3 GOOD FAITH ANALYTICAL CERTIFICATION FOR INCINERATED ORGANICS
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion in units as specified in 268.42 Table 1. I have been unable to detect the nonwastewater organic constituents despite having used best good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.4 DECHARACTERIZED WASTE REQUIRES TREATMENT FOR UNDERLYING HAZARDOUS CONSTITUENTS
"I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 or 268.49, to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.6 RESTRICTED DEBRIS TREATED TO ALTERNATE PERFORMANCE STANDARDS
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 40 CFR 268.45 without impermissible dilution of the prohibited wastes. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

C. RESTRICTED WASTE SUBJECT TO A VARIANCE
This waste is subject to a national capacity variance, a treatability variance, or a case-by-case extension. Enter the effective date of prohibition in column 5 above.
For Hazardous Debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 268.45."

D. RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT
"I certify under penalty of law I have personally examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

E. WASTE IS NOT CURRENTLY SUBJECT TO PART 268 RESTRICTIONS
This waste is a newly identified waste that is not currently subject to any 40 CFR Part 268 restrictions.

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature: [signature] Title: Director of Ops Date: 20150804

LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM (PHASE IV) -REVERSE SIDE VIC-VA5406

SOLVENT

If the waste identified on the first page of this form is described by any of the following USEPA hazardous waste codes: F001, F002, F003, F004, F005, and all solvent constituents will not be monitored by the tester, then each constituent MUST be identified below by checking the appropriate box, and this page must accompany the shipment, along with the previous page of this form. If the waste code F039 describes this waste, then the corresponding list of constituents must be attached. If D001-D043 require treatment to 268.48 standards, then the underlying hazardous constituent(s) must also be attached.

SOLVENT WASTE TREATMENT STANDARDS [2]

F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s).	Treatment Standard [1]		F001 through F005 spent solvent constituents and their associated USEPA hazardous waste code(s).	Treatment Standard [1]	
	Wastewaters	Nonwastewaters		Wastewaters	Nonwastewaters

[1] All spent solvent treatment standards are measured through a total waste analysis (TCA), unless otherwise noted. Wastewater units are mg/l, nonwastewater are mg/kg.

[2] For contaminated soils using the alternative soil treatment standards, the treatment standards for F001-F005 spent solvents must be a 90% reduction of constituents or less than 10 x the standards listed.

SUBCATEGORY REFERENCE

D001:
A. Ignitable characteristic wastes, except for the 40 CFR 261.21(a)(1) High TOC subcategory.
B. High TOC Ignitable characteristic liquids subcategory based on 40 CFR 261.21(a)(1) - Greater than or equal to 10% total organic carbon.

ATTACHMENT F: Inspection Checklists

BK

Baerlocher USA OHR000031567 8/4/2015

LARGE QUANTITY GENERATOR REQUIREMENTS

COMPLETE AND ATTACH A PROCESS DESCRIPTION SUMMARY

CESQG: ≤100 Kg. (Approximately 25-30 gallons) of waste in a calendar month or < 1 Kg. of acutely hazardous waste.

SQG: Between 100 and 1,000 Kg. (About 25 to under 300 gallons) of waste in a calendar month.

LQG: ≥ 1,000 Kg. (~300 gallons) of waste in a calendar month or ≥1 Kg. of acutely hazardous waste in a calendar month.

NOTE: To convert from gallons to pounds: Amount in gallons x Specific Gravity x 8.345 = Amounts in pounds.

Safety Equipment Used:

GENERAL REQUIREMENTS

1.	Have all wastes generated at the facility been adequately evaluated? [3745-52-11]	Yes ☑	No ☐	N/A ☐
2.	Are records of waste determination being kept for at least 3 years? [3745-52-40(C)]	Yes ☑	No ☐	N/A ☐
3.	Has the generator obtained a U.S. EPA identification number? [3745-52-12]	Yes ☑	No ☐	N/A ☐
4.	Were biennial reports filed with Ohio EPA on or before March 1st? [3745-52-41(A)] (filed on even years for previous year)	Yes ☑	No ☐	N/A ☐
5.	Are biennial reports kept on file for at least 3 years? [3745-52-40(B)]	Yes ☑	No ☐	N/A ☐
6.	Has the generator transported or caused to be transported hazardous waste to **other** than a facility authorized to manage the hazardous waste? [ORC 3734.02(F)]	Yes ☐	No ☑	N/A ☐
7.	Has the generator disposed of hazardous waste **on-site without a permit** or at another facility **other** than a facility authorized to dispose of the hazardous waste? [ORC 3734.02(E)&(F)]	Yes ☐	No ☑	N/A ☐
8.	Does the generator accumulate hazardous waste?	Yes ☑	No ☐	N/A ☐

NOTE: If the LQG does not accumulate or treat hazardous waste, it is not subject to 52-34 standards. All other requirements still apply, e.g., annual reports, manifest, marking, record keeping, LDR, etc.

9.	Has the generator accumulated hazardous waste on-site in excess of 90 days without a permit or an extension from the director ORC §3734.02(E)&(F)?	Yes ☐	No ☑	N/A ☐

NOTE: If F006 waste is generated and accumulated for > 90 days and is recycled see 3745-52-34(G)&(H).

10.	Does the generator treat hazardous waste in a: [ORC 3734.02(E)&(F)]				
	a.	Container that meets 3745-66-70 to 3745-66-77?	Yes ☐	No ☐	N/A ☐
	b.	Tank that meets 3745-66-90 to 3745-66-100 except 3745-66-97(C)?	Yes ☐	No ☐	N/A ☐
	c.	Drip pads that meet 3745-69-40 to 3745-69-45?	Yes ☐	No ☐	N/A ☐

	d.	Containment building that meets 3745-256-100 to 3745-256-102?	Yes ☐ No ☐ N/A ☒
NOTE: Complete appropriate checklist for each unit.			
NOTE: If waste is treated to meet LDRs, use LDR checklist.			
11.	Does the generator export hazardous waste? If so:		Yes ☐ No ☑ N/A ☐
	a.	Has the generator notified U.S. EPA of export activity? [3745-52-53(A)]	Yes ☐ No ☐ N/A ☐
	b.	Has the generator complied with special manifest requirements? [3745-52-54]	Yes ☐ No ☐ N/A ☐
	c.	For manifests that have not been returned to the generator: has an exception report been filed? [3745-52-55]	Yes ☐ No ☐ N/A ☐
	d.	Has an annual report been submitted to U.S. EPA? [3745-52-56]	Yes ☐ No ☐ N/A ☐
	e.	Are export related documents being maintained on-site? [3745-52-57(A)]	Yes ☐ No ☐ N/A ☐
MANIFEST REQUIREMENTS			
12.	Have all hazardous wastes shipped off-site been accompanied by a manifest? (U.S. EPA Form 8700-22) [3745-52-20(A)(1)]		Yes ☑ No ☐ N/A ☐
13.	Have items (1) through (20) of each manifest been completed? [3745-52-20(A)(1)]&[3745-52-27(A)]		Yes ☑ No ☐ N/A ☐
NOTE: U.S. EPA Form 8700-22(A) (the continuation form) may be needed in addition to Form 8700-22. In these situations items (21) through (35) must also be completed. [3745-52-20(A)(1)]			
14.	Does each manifest designate at least one facility which is permitted to handle the waste? [3745-52-20(B)]		Yes ☑ No ☐ N/A ☐
NOTE: The generator may designate on the manifest one alternate facility to handle the waste in the event of an emergency which prevents the delivery of waste to the primary designated facility. [3745-52-20(C)]			
15.	If the transporter was unable to deliver a shipment of hazardous waste to the designated facility, did the generator designate an alternate TSD facility or give the transporter instructions to return the waste? [3745-52-20(D)]		Yes ☐ No ☐ N/A ☒
16.	Have the manifests been signed by the generator and initial transporter? [3745-52-23(A)(1)&(2)]		Yes ☑ No ☐ N/A ☐
NOTE: Remind the generator that the certification statement they signed indicates: 1) they have properly prepared the shipment for transportation and 2) they have a program in place to reduce the volume and toxicity waste they generate.			
17.	If the generator received a rejected load or residue, did the generator:		
	a.	Sign item 20 of the new manifest or item 18c of the original manifest?	Yes ☐ No ☐ N/A ☒

		[3745-52-23(F)(1)	
	b.	Provide the transporter a copy of the manifest? [3745-52-23(F)(2)]	Yes ☐ No ☐ N/A ☐
	c.	Send a copy of the manifest to the designated facility that returned the shipment with 30 days after delivery of the rejected shipment? [3745-52-23(F)(3)]	Yes ☐ No ☐ N/A ☐
18.		If the generator did not receive a return copy of each completed manifest within 35 days of the waste being accepted by the transporter, did the generator contact the transporter and/or TSD facility to check on the status of the waste? [3745-52-42(A)(1)]	Yes ☐ No ☐ N/A ☐
19.		If the generator has not received the manifest within 45 days, did the generator file an exception report with Ohio EPA? [3745-52-42(A)(2)]	Yes ☐ No ☐ N/A ☐
20.		Are signed copies of all manifests and any exception reports being retained for at least three years? [3745-52-40]	Yes ☑ No ☐ N/A ☐
NOTE: A generator who sends a shipment of hazardous waste to a TSD facility with the understanding that the TSD facility can accept and manage the waste and later receives that shipment back as a rejected load or residue may accumulate the waste on-site for <90 days or <180 days depending on the amount of hazardous waste on-site in that calendar month. [3745-52-34(M)]			
NOTE: Waste generated at one location and transported along a publicly accessible road for temporary consolidated storage or treatment on a contiguous property also owned by the same person is not considered "on-site" and manifesting and transporter requirements must be met. To transport "along" a public right-of-way the destination facility has to act as a transfer facility or have a permit because this is considered to be "off-site." For additional information see the definition of "on-site" in OAC rule 3745-50-10.			
PERSONNEL TRAINING			
21.		Does the generator have a training program which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to their positions? [3745-65-16(A)(2)]	Yes ☑ No ☐ N/A ☐
22.		Does the personnel training program, at a minimum, include instructions to ensure that facility personnel are able to respond effectively to emergencies involving hazardous waste by familiarizing them with emergency procedures, emergency equipment and emergency systems (where applicable)? [3745-65-16(A)(3)]	Yes ☑ No ☐ N/A ☐
NOTE: For facility employees that receive emergency response training pursuant to OSHA regulations, the facility is not required to provide separate emergency response training, provided that the overall facility training meets all the requirements of OAC 3745-65-16(A). [3745-65-16(A)(4)]			
23.		Is the personnel training program directed by a person trained in hazardous waste management procedures? [3745-65-16(A)(2)]	Yes ☑ No ☐ N/A ☐
24.		Do new employees receive training within six months after the date of hire (or assignment to a new position)? [3745-65-16(B)]	Yes ☑ No ☐ N/A ☐

25.	Does the generator provide refresher training to employees during each period from January 1st to December 31st and does each training occur within 15 months after the previous training? [3745-65-16(C)]		Yes ☑ No ☐ N/A ☐
26.	Does the generator keep records and documentation of:		
	a.	Job titles? [3745-65-16(D)(1)]	Yes ☑ No ☐ N/A ☐
	b.	Job descriptions? [3745-65-16(D)(2)]	Yes ☑ No ☐ N/A ☐
	c.	A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (D)(1) of this rule? [3745-65-16(D)(3)]	Yes ☑ No ☐ N/A ☐
	d.	Completed training or job experience required? [3745-65-16(D)(4)]	Yes ☑ No ☐ N/A ☐
27.	Are training records for current personnel kept until closure of the facility and are training records for former employees kept for at least three years from the date the employee last worked at the facility? [3745-65-16(E)]		Yes ☑ No ☐ N/A ☐

NOTE: The following section can be used by the inspector to document that all personnel who are involved with hazardous waste management have been trained. The employees who need training (written and/or on-the -job) may include the following: environmental coordinators, drum handlers, emergency coordinators, personnel who conduct hazardous waste inspections, emergency response teams, personnel who prepare manifest, etc.

Job Performed	Name of Employee	Date Trained

CONTINGENCY PLAN

28.	Does the owner/operator have a contingency plan to minimize hazards to human health or the environment from fires, explosions or any unplanned release of hazardous waste? [3745-65-51(A)]		Yes ☑ No ☐ N/A ☐
29.	Does the plan describe the following:		
	a.	Actions to be taken in response to fires, explosions or any unplanned release of hazardous waste? [3745-65-52(A)]	Yes ☑ No ☐ N/A ☐
	b.	Arrangements with emergency authorities? [3745-65-52(C)]	Yes ☑ No ☐ N/A ☐
	c.	A current list of names, addresses and telephone numbers (office and home) of all persons qualified to act as emergency coordinator? [3745-65-52(D)]	Yes ☑ No ☐ N/A ☐
	d.	A list of all emergency equipment, including: location, a physical description and brief outline of capabilities? [3745-65-52(E)]	Yes ☑ No ☐ N/A ☐

	e.	An evacuation plan for facility personnel where there is possibility that evacuation may be necessary? [3745-65-52(F)]	Yes ☑ No ☐ N/A ☐

NOTE: If the facility already has a "Spill Prevention, Control and Countermeasures Plan" under 40 CFR Part 112 or some other emergency plan, the facility can amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with OAC requirements. The facility may develop one contingency plan which meets all regulatory requirements. Ohio EPA recommends that the plan be based on the "National Response Team's Integrated Contingency Plan Guidance (One Plan)." [3745-65-52(B)]

30.	Is a copy of the plan (plus revisions) kept on-site and been given to all emergency authorities that may be requested to provide emergency services? [3745-65-53(A)&(B)]	Yes ☑ No ☐ N/A ☐
31.	Has the generator revised the plan in response to rule changes, facility, equipment and personnel changes, or failure of the plan? [3745-65-54]	Yes ☑ No ☐ N/A ☐
32.	Is an emergency coordinator available at all times (on-site or on-call)? [3745-65-55]	Yes ☑ No ☐ N/A ☐

NOTE: The emergency coordinator shall be thoroughly familiar with: (a) all aspects of the facility's contingency plan; (b) all operations and activities at the facility; (c) the location and characteristics of waste handled; (d) the location of all records within the facility; (e) facility layout; and (f) shall have the authority to commit the resources needed to implement provisions of the contingency plan.

EMERGENCY PROCEDURES

33.	Has there been a fire, explosion or release of hazardous waste or hazardous waste constituents since the last inspection? If so:		Yes ☐ No ☑ N/A ☐
	a.	Was the contingency plan implemented? [3745-65-51(B)]	Yes ☐ No ☐ N/A ☐
	b.	Did the facility follow the emergency procedures in 3745-65-56(A) through (H)?	Yes ☐ No ☐ N/A ☐
	c.	Did the facility submit a report to the Director within 15 days of the incident as required by 3745-65-56(I)?	Yes ☐ No ☐ N/A ☐

NOTE: OAC 3745-65-51(B) requires that the contingency plan be implemented immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents, which could threaten human health and the environment.

PREPAREDNESS AND PREVENTION			
34.	Is the facility operated to minimize the possibility of fire, explosion, or any unplanned release of hazardous waste? [3745-65-31]		Yes ☑ No ☐ N/A ☐
35.	Does the generator have the following equipment at the facility, if it is required due to actual hazards associated with the waste:		
	a.	Internal communications or alarm system? [3745-65-32(A)]	Yes ☑ No ☐ N/A ☐
	b.	Emergency communication device? [3745-65-32(B)]	Yes ☑ No ☐ N/A ☐
	c.	Portable fire control, spill control and decon equipment? [3745-65-32(C)]	Yes ☑ No ☐ N/A ☐
	d.	Water of adequate volume/pressure per documentation or facility rep? [3745-65-32(D)]	Yes ☑ No ☐ N/A ☐
NOTE: Verify that the equipment is listed in the contingency plan.			
36.	Is emergency equipment tested (inspected) as necessary to ensure its proper operation in time of emergency? [3745-65-33]		Yes ☑ No ☐ N/A ☐
37.	Are emergency equipment tests (inspections) recorded in a log or summary? [3745-65-33]		Yes ☑ No ☐ N/A ☐
38.	Do personnel have immediate access to an internal alarm or emergency communication device when handling hazardous waste (unless the device is not required under 3745-65-32)? [3745-65-34(A)]		Yes ☑ No ☐ N/A ☐
39.	If there is only one employee on the premises, is there immediate access to a device (eg. phone, and hand held two-way radio) capable of summoning external emergency assistance (unless not required under 3745-65-32)? [3745-65-34(B)]		Yes ☑ No ☐ N/A ☐
40.	Is adequate aisle space provided for unobstructed movement of emergency or spill control equipment? [3745-65-35]		Yes ☑ No ☐ N/A ☐
41.	Has the generator attempted to familiarize emergency authorities with possible hazards and facility layouts? [3745-65-37(A)]		Yes ☑ No ☐ N/A ☐
42.	Where authorities have declined to enter into arrangements or agreements, has the generator documented such a refusal? [3745-65-37(B)]		Yes ☐ No ☐ N/A ☑
SATELLITE ACCUMULATION AREA REQUIREMENTS			
43.	Does the generator ensure that satellite accumulation area(s):		
	a.	Are at or near a point of generation? [3745-52-34(C)(1)]	Yes ☑ No ☐ N/A ☐

	b.	Are under the control of the operator of the process generating the waste? [3745-52-34(C)(1)]	Yes ☑ No ☐ N/A ☐
	c.	Do not exceed a total of 55 gallons of hazardous waste per waste stream? [3745-52-34(C)(1)]	Yes ☑ No ☐ N/A ☐
	d.	Do not exceed one quart of acutely hazardous waste at any one time? [3745-52-34(C)(1)]	Yes ☑ No ☐ N/A ☐
	e.	Containers are closed, in good condition and compatible with wastes stored in them? [3745-52-34(C)(1)(a)]	Yes ☑ No ☐ N/A ☐
	f.	Containers are marked with words "Hazardous Waste" or other words identifying the contents? [3745-52-34(C)(1)(b)] Bucket of lab samples not labeled → later added to 55-gallon drum	Yes ☐ No ☑ N/A ☐
44.	Is the generator accumulating hazardous waste(s) in excess of the amounts listed in the preceding question? If so:		Yes ☐ No ☑ N/A ☐
	a.	Did the generator comply with 3745-52-34(A)(1) through (4) or other applicable generator requirements within three days? [3745-52-34(C)(2)]	Yes ☑ No ☐ N/A ☐
	b.	Did the generator mark the container(s) holding excess with the accumulation date when the 55 gallon (one quart) limit was exceeded? [3745-52-34(C)(2)]	Yes ☑ No ☐ N/A ☐

NOTE: The satellite accumulation area is limited to 55 gallons of hazardous waste accumulated from a distinct point of generation in the process under the control of the operator of the process generating the waste (less then 1 quart for acute hazardous waste). There could be individual waste streams accumulated in an area from different points of generation.

USE AND MANAGEMENT OF CONTAINERS IN <90 DAY ACCUMULATION AREAS

45.	Has the generator marked containers with the words "Hazardous Waste?" [3745-52-34(A)(3)]		Yes ☑ No ☐ N/A ☐
46.	The date upon which each period of accumulation and/or treatment begins is clearly marked and visible for inspection on each container? [3745-52-34(A)(2)]		Yes ☑ No ☐ N/A ☐
47.	Are hazardous wastes stored in containers which are:		
	a.	Closed (except when adding/removing wastes)? [3745-66-73(A)]	Yes ☑ No ☐ N/A ☐
	b.	In good condition? [3745-66-71]	Yes ☑ No ☐ N/A ☐
	c.	Compatible with wastes stored in them? [3745-66-72]	Yes ☑ No ☐ N/A ☐
	d.	Handled in a manner which prevents rupture/leakage? [3745-66-73(B)]	Yes ☑ No ☐ N/A ☐

NOTE: Record location on process summary sheets, photograph the area, and record on facility map.			
48.	Is the container accumulation areas(s) inspected at least once during the period from Sunday to Saturday? [3745-66-74]		Yes ☑ No ☐ N/A ☐
	a.	Are inspections recorded in a log or summary? [3745-66-74]	Yes ☑ No ☐ N/A ☐
49.	Are containers of ignitable or reactive wastes located at least 50 feet (15 meters) from the facility's property line? [3745-66-76]		Yes ☑ No ☐ N/A ☐
50.	Are containers of incompatible wastes stored separately from each other by means of a dike, berm, wall or other device? [3745-66-77(C)]		Yes ☐ No ☐ N/A ☒
51.	If the generator places incompatible wastes, or incompatible wastes and materials in the same container, is it done in accordance with 3745-65-17(B)? [3745-66-77(A)]		Yes ☐ No ☐ N/A ☒
52.	If the generator places hazardous waste in an unwashed container that previously held an incompatible waste, is it done in accordance with 3745-65-17(B)? [3745-66-77(B)]		Yes ☐ No ☐ N/A ☒
NOTE: OAC 3745-65-17(B) requires that the generator treat, store, or dispose of ignitable or reactive waste, and the mixture or commingling of incompatible wastes, or incompatible wastes and materials so that it does not create undesirable conditions or threaten human health or the environment.			
53.	If the generator has closed a <90 day accumulation area does the closure appear to have met the closure performance standard of 3745-66-11? [3745-52-34(A)(1)]		Yes ☐ No ☐ N/A ☒
NOTE: Please provide a description of the unit and documentation provided by the generator for the file to demonstrate that closure was completed in accordance with the closure performance standards. If the generator has closed a <90 day tank, closure must also be completed in accordance with OAC 3745-66-97 (except for paragraph C of this rule). [3745-52-34]			
PRE-TRANSPORT REQUIREMENTS			
54.	Does the generator package/label its hazardous waste in accordance with the applicable DOT regulations? [3745-52-30, 3745-52-31 and 3745-52-32(A)]		Yes ☑ No ☐ N/A ☐
55.	Does each container ≤119 gallons have a completed hazardous waste label? [3745-52-32(B)]		Yes ☑ No ☐ N/A ☐
56.	Before off-site transportation, does the generator placard or offer the appropriate DOT placards to the initial transporter? [3745-52-33]		Yes ☑ No ☐ N/A ☐

GENERATOR LDR CHECKLIST DOES NOT APPLY TO CESQGS				
GENERAL REQUIREMENTS				
1.	If LDRs do not apply, does the generator have a statement that lists how the HW was generated, why LDRs don't apply and where the HW went? [3745-270-07(A)(7)]			Yes ☐ No ☐ N/A ☑
2.	Did the generator determine if the HW/soil must be treated to meet the LDR treatment standard prior to disposal? Generator knowledge or testing may be used. [3745-270-07(A)(1)] If not,			Yes ☑ No ☐ N/A ☐
	a.	Did the generator send the waste to a permitted HW TREATMENT facility? [3745-270-07(A)(1)]		Yes ☑ No ☐ N/A ☐
NOTE: This is done by determining if the HW /soil contains levels of constituents greater than the levels given in its LDR treatment standard in 3745-270-40. However, if a specific treatment method is given in 3745-270-40 for the HW, no determination is required [3745-270-07(A)(1)(b)]. If soil, generator can choose to have soil treated to LDR levels given in 3745-270-49 (alternative treatment levels for soils).				
3.	Does the generator have documentation of how he determined whether the HW/soil meets or does not meet the LDR treatment standard in 2, above? [3745-270-07(A)(6)(a) or 3745-270-07(A)(6)(b)]			Yes ☑ No ☐ N/A ☐
4.	Does the generator keep the documentation required in #2, above, on-site for at least three years from the last date the HW/soil was sent on-site/off-site for treatment/disposal? [3745-270-07(A)(8)]			Yes ☑ No ☐ N/A ☐
5.	Does the generator generate a listed HW that exhibits a characteristic? If yes,			Yes ☐ No ☑ N/A ☐
	a.	Did the generator determine if the listed HW exhibits a characteristic that is not treated under the LDR treatment standard for the listed HW? [3745-270-09(A)]		Yes ☐ No ☐ N/A ☑
FOR EXAMPLE: F006 that exhibits the characteristic for silver or K062 that is corrosive, D002. Review LDR treatment standard in 3745-270-40 to determine what constituents the listed HW is treated for.				
6.	Did the generator determine if its characteristic HW contains underlying hazardous constituents that need to be treated? [3745-270-09(A)]			Yes ☑ No ☐ N/A ☐
NOTE: This is done by evaluating which underlying hazardous constituents (UHC) are in the HW at levels above the universal treatment standards given in 3745-270-48. This requirement does not apply to high total organic carbon (i.e., contains >10% TOC) D001 wastes or listed HWs.				
NOTE: Written documentation of this determination is not required.				
7.	Did the generator treat his HW /soil on-site to meet the LDR treatment standard?			Yes ☐ No ☑ N/A ☐
NOTE: If "Yes" see question #16.				
8.	Did the generator send a one-time LDR notification form to the TSD with the first shipment to that facility? [3745-270-07(A)(2)]			Yes ☑ No ☐ N/A ☐
	a.	If the generator chose not to make the determination of whether his waste must be treated, did he send a notice to the TSD facility with each shipment? [3745-270-07(A)(2)] If so, did the notice include:		Yes ☐ No ☐ N/A ☑
		i	Applicable HW codes?	Yes ☐ No ☐ N/A ☐
		ii	Manifest number of the first shipment to the TSD?	Yes ☐ No ☐ N/A ☐
		iii	A statement that conveys that the HW may or may not be subject to the LDR treatment standards and the TSD must make that determination."?	Yes ☐ No ☐ N/A ☐

9.	Did the generator resubmit the LDR notification form to the TSD when the HW changed or the generator used a new TSD? [3745-270-07(A)(2)]			Yes ☑ No ☐ N/A ☐
10.	Does the generator have a copy of the LDR notification form/notice on file? [3745-270-07(A)(2)] LDR notifications for certain wastes not on-site			Yes ☐ No ☑ N/A ☐
	a.	Is the form/notice kept on file for three years after last HW shipped? [3745-270-07(A)(8)]		Yes ☐ No ☑ N/A ☐
NOTIFICATION FORM				
11.	Does the LDR Notification form contain the following information:			
	a.	Manifest number of the first waste shipment to the TSD? [3745-270-07(A)(2)]		Yes ☑ No ☐ N/A ☐
	b.	Applicable waste codes (includes characteristic codes for a listed HW if applicable)? [3745-270-07(A)(2)]		Yes ☑ No ☐ N/A ☐
	c.	A statement that conveys that the HW is subject to LDRs and must be treated to meet LDR treatment requirements? [3745-270-07(A)(2)]		Yes ☑ No ☐ N/A ☐
	d.	A designation whether the HW is a wastewater or non-wastewater? [3745-270-07(A)(2)]		Yes ☑ No ☐ N/A ☐
NOTE: A wastewater contains <1% by wt. total suspended solids(TSS) and <1% by wt. TOC. If you doubt the HW is a wastewater or non-wastewater, the HW can be tested using for example, Standard Methods (SM) 160.2 for TSS, SW-846 method 9060a for TOC.				
	e.	Designation of the waste subcategory when applicable? [3745-270-07(A)(2)]		Yes ☑ No ☐ N/A ☐
NOTE: Subcategories are found on the LDR treatment standards table under the applicable waste code. Not all HWs have subcategories				
	f.	A listing of the underlying hazardous constituents for which a characteristic waste must be treated? [3745-270-07(A)(2)]		Yes ☑ No ☐ N/A ☐
NOTE: Not required if the waste is high TOC D001 or the TSD tests its treatment residues for all underlying hazardous constituents.				
	g.	If the HW is F001-F005 or F039, did the generator note on the LDR form what solvents or constituents, respectively, the waste contains and must be treated for? [3745-270-07(A)(2)]		Yes ☐ No ☐ N/A ☒
NOTE: Not required if the TSD tests its treatment residues for all underlying hazardous constituents.				
PROHIBITED DILUTION				
12.	Is the HW treated by burning? If "No" go to #15.			Yes ☐ No ☑ N/A ☐
13.	Is the HW a metal-bearing HW?			Yes ☑ No ☐ N/A ☐
NOTE: Generally, metal-bearing HWs contain heavy metals above TCLP levels or were listed due to the presence of metals. A list of the restricted metal-bearing HWs are given in the Appendix to 3745-270-03.				
14.	a.	Metal-bearing HWs cannot be incinerated, combusted or, blended and burned for fuel unless **one** of the following conditions apply. [3745-270-03(c)]		
		i.	Contains > 1% TOC?	Yes ☐ No ☐ N/A ☐
		ii.	Contains organic constituents or cyanide at levels greater than the UTS levels?	Yes ☐ No ☐ N/A ☐
		iii.	Is made up of combustible material e.g., paper, wood, plastic?	Yes ☐ No ☐ N/A ☐

		iv.	Has a reasonable heating value (e.g., > 5000 Btu)?	Yes ☐ No ☐ N/A ☐
		v.	Co-generated with a HW that must be combusted?	Yes ☐ No ☐ N/A ☐
	b.		If all responses to 14 a.i. through 14 a.v. are "No", HW is being improperly treated by dilution, violation of 3745-270-03(C). Is HW being treated by dilution?	Yes ☐ No ☑ N/A ☐
15.	Was the HW treated by wastewater treatment?			Yes ☐ No ☑ N/A ☐
	a.		Is a LDR treatment method, other than DEACT or a numerical value, specified for the waste? [3745-270-03(B) and 3745-270-40(A)(3)]	Yes ☐ No ☑ N/A ☐
NOTE: If "Yes", HW is improperly being treated by dilution.				
	b.		Does the waste carry the D001 code and contain ≥10% TOC?	Yes ☐ No ☑ N/A ☐
	c.		Does the wastewater treatment process include a process to separate/recover the organic phase of the waste?	Yes ☐ No ☐ N/A ☐
NOTE: If the answers to b & c are "yes" and "no", respectively, waste is improperly being treated by dilution and generator is in violation of [3745-270-03(B)] and 3745-270-40(A)(3)].				
NOTE: A list of separation/recovery processes are given in 3745-270-42 under RORG.				
GENERATOR TREATMENT				
16.	Does the generator treat to meet LDRs on-site?			Yes ☐ No ☑ N/A ☐
	Did the generator treat his hazardous waste/soil on-site in a tank, container, drip pad or containment building to meet the LDR treatment standard?			Yes ☐ No ☑ N/A ☐
	If "Yes"...complete the rest of the checklist.. If "No"...stop...you are done.			
	a.		Does the generator have a written waste analysis plan (WAP) that describes the procedures he will follow to treat the HW/soil to the LDR treatment standard? [3745-270-07(A)(5)]	Yes ☐ No ☐ N/A ☐
	b.		Did the generator use a detailed chemical and physical analysis of the HW/soil in order to develop the WAP? [3745-270-07(A)(5)(a)]	Yes ☐ No ☐ N/A ☐
NOTE: This is a laboratory analysis but it does not have to be kept by the generator.				
	c.		Does the WAP contain all information necessary to treat the HW/soil to the LDR treatment standard? [3745-270-07(A)(5)(a)]	Yes ☐ No ☐ N/A ☐
	d.		Does the WAP include the testing frequency of the treated HW/soil to demonstrate that the LDR treatment standard is being met? [3745-270-07(A)(5)(a)]	Yes ☐ No ☐ N/A ☐
	e.		Does the generator keep the WAP on-site? [3745-270-07(A)(5)(b)]	Yes ☐ No ☐ N/A ☐
	f.		Is the WAP available for the inspector's review during the inspection? [3745-270-07(A)(5)(b)]	Yes ☐ No ☐ N/A ☐
NOTIFICATION FORM FOR GENERATOR TREATMENT				
17.	a.		Contains all information in #11 a-g above and	Yes ☐ No ☐ N/A ☐

	b.	If the treated HW/soil is listed.....notification contains the following certification statement: "I certify under penalty of law that I personally have examined and am familiar with the waste, through analysis and testing or through knowledge of the waste, to support this certification that the waste complies with the treatment standards specified in rule 3745-270-40 to 3745-270-49 of the Administrative Code. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."			Yes ☐ No ☐ N/A ☐
	c.	If the treated HW/soil no longer exhibits a characteristic and is no longer a HW, did the generator:			
		i.	Prepare a one-time notification? [3745-270-09 (D)]		Yes ☐ No ☐ N/A ☐
		ii.	Maintain a copy of the notice onsite? [3745-270-09(D)]		Yes ☐ No ☐ N/A ☐
		iii.	Include in the notification: [3745-270-09(D)]		
			1.	Name & address of receiving landfill?	Yes ☐ No ☐ N/A ☐
			2.	Description of HW when generated?	Yes ☐ No ☐ N/A ☐
			3.	HW code when generated?	Yes ☐ No ☐ N/A ☐
			4.	Treatability group when generated?	Yes ☐ No ☐ N/A ☐
			5.	Underlying hazardous constituents present when generated?	Yes ☐ No ☐ N/A ☐
		iv.	Contain the certification statement as required by 3745-270-07(B)(4)?		Yes ☐ No ☐ N/A ☐

BK

Baerlocher USA OHR000021567 8/4/2015

LQG TANK SYSTEM REQUIREMENTS (OAC rule 3745-52-34(A) and OAC rules 3745-66-90 through 3745-66-100)			
(Please refer to the rules before or while completing this checklist.)			
1.	Is each tank clearly labeled/marked with the words "Hazardous Waste?" [3745-52-34(A)(3)]		Yes ☑ No ☐ N/A ☐
TANK SYSTEM – GENERAL OPERATING REQUIREMENTS			
2.	Does the o/o follow the general operating requirements below:		
	a.	Does the o/o prevent placement of hazardous waste or treatment reagents in tank or secondary containment if such placement can cause the system to leak, rupture, corrode, or otherwise fail? [3745-66-94(A)]	Yes ☑ No ☐ N/A ☐
	b.	Does the o/o use appropriate controls to prevent spills or overflows from the system (e.g., check valves, dry disconnect couplings, high level alarms, etc.)? [3745-66-94(B)]	Yes ☑ No ☐ N/A ☐
	c.	If a leak or spill has occurred in the tank system, has the o/o complied with 3745-66-96? [3745-66-94(C)]	Yes ☐ No ☐ N/A ☒
TANK SYSTEM – INSPECTION REQUIREMENTS			
3.	Has the o/o documented the inspections required in 3745-66-95, in the operating record, including inspection of the following:		
	a.	Data from leak detection equipment each operating day? [3745-66-95(A)]	Yes ☑ No ☐ N/A ☐
	b.	Spill control equipment each operating day? [3745-66-95(B)(1)]	Yes ☑ No ☐ N/A ☐
	c.	Above ground portion of tank each operating day? [3745-66-95(B)(2)]	Yes ☑ No ☐ N/A ☐
	d.	Construction materials and area immediately surrounding the tanks for signs of erosion or release of hazardous waste each operating day? [3745-66-95(B)(3)]	Yes ☑ No ☐ N/A ☐
NOTE: "Each operating day" is each day that the tank system is being used to manage (store or treat) hazardous waste.			
4.	For tank systems using leak detection systems to alert facility personnel to leaks or implementing established workplace practices to ensure leaks are promptly identified, has the o/o documented: [3745-66-95(C)]		Yes ☑ No ☐ N/A ☐
	a.	Inspections of spill control equipment weekly?	Yes ☑ No ☐ N/A ☐
	b.	Inspections of above ground portion of tank weekly?	Yes ☑ No ☐ N/A ☐
	c.	Inspections of construction materials and area immediately surrounding the tanks for signs of erosion or release of hazardous waste weekly?	Yes ☑ No ☐ N/A ☐
	d.	Use of the alternate inspection schedule, including a description of the established workplace practices at the facility?	Yes ☑ No ☐ N/A ☐
5.	For ancillary equipment NOT provided with secondary containment, has the o/o documented inspections of such equipment each operating day? [3745-66-95(E)]		Yes ☐ No ☐ N/A ☒
6.	Where applicable, did the o/o inspect the cathodic protection system to confirm proper operation within six months of initial installation and annually thereafter? [3745-66-95(F)(1)]		Yes ☐ No ☐ N/A ☒
7.	Where applicable, did the o/o inspect all sources of impressed current at least bi-monthly? [3745-66-95(F)(2)]		Yes ☐ No ☐ N/A ☒

TANK SYSTEM CLOSURE REQUIREMENTS			
8.	If the o/o has closed a <90 day tank, was closure completed in accordance with OAC 3745-66-97 (except for paragraph C)?		Yes ☑ No ☐ N/A ~~☐~~
TANK SYSTEMS STORING IGNITABLE OR REACTIVE WASTES			
9.	For tanks used to treat or store ignitable or reactive wastes, has the o/o complied with one of the following: [3745-66-98(A)]		Yes ☐ No ☐ N/A ☐
	a.	Is the waste treated immediately after placement in the tank so that the resultant mixture is no longer ignitable or reactive and the o/o has conducted such activities in compliance with 3745-66-17(B)? [3745-66-98(A)]; or	Yes ☐ No ☐ N/A ☐
	b.	Is the waste stored or treated to protect it from materials or conditions which may cause ignition or reaction? [3745-66-98(A)]; or	Yes ☐ No ☐ N/A ☐
	c.	The tank is used solely for emergencies? [3745-66-98(A)]	Yes ☐ No ☐ N/A ☐
10.	If ignitable or reactive waste is stored or treated, are protective distances maintained between waste management areas and any public streets, alleys or adjoining property lines as required by the NFPA Flammable and Combustible Liquids Code (2008)? [3745-66-98(B)]		Yes ☐ No ☐ N/A ☐
11.	Has the o/o placed incompatible wastes or materials into the same tank system, or into a tank system that has not been decontaminated and which previously held an incompatible waste or material? [3745-66-99(A) and/or (B)]		Yes ☐ No ☐ N/A ☐
	a.	**If so,** have the requirements of 3745-65-17(B) been met? [3745-66-99(A) and/or (B)]	Yes ☐ No ☐ N/A ☐
TANK SYSTEM – WASTE ANALYSIS REQUIREMENTS			
12.	In addition to conducting the waste analysis required by 3745-65-13, when the tank system is used to store or treat a waste which is substantially different or uses a substantially different process than previously used, has the o/o done one of the following: [3745-66-100]		Yes ☐ No ☐ N/A ☐
	a.	Conducted waste analysis and trial treatment or storage tests? [3745-66-100(A)]; **OR**	Yes ☐ No ☐ N/A ☐
	b.	Obtained written documentation on similar waste under similar operating conditions to show that the proposed storage/treatment will meet the requirements of OAC 3745-66-94? [3745-66-100(B)]	Yes ☐ No ☐ N/A ☐
TANK SYSTEMS REQUIREMENTS			
13.	Is there a written assessment attesting that the design, installation and structural integrity of the system is adequate for the management of hazardous waste(s)? [3745-66-92(A)]		Yes ☑ No ☐ N/A ☐
NOTE: You should review the file to see if the written assessment has been previously reviewed and what the results were.			
14.	Does the written assessment include the following: [3745-66-92(A)]		
	a.	Certification by a qualified professional engineer? [3745-66-92(A)]	Yes ☑ No ☐ N/A ☐
	b.	Consideration of the design standards of the system? [3745-66-92(A)]	Yes ☑ No ☐ N/A ☐
	c.	Consideration of the hazardous characteristics of the waste(s)? [3745-66-92(A)]	Yes ☑ No ☐ N/A ☐
	d.	An evaluation by a corrosion expert (only if the external system/components are metal and in contact with soil or water)? [3745-66-92(A)]	Yes ☑ No ☐ N/A ☐

	e.	A determination of design and operational measures that will be needed to protect the tank system from potential damage (only for underground tank components)? [3745-66-92(A)]		Yes ☐ No ☐ N/A ☒
	f.	Design considerations to ensure that the tank foundations will maintain the load of a full tank? [3745-66-92(A)]		Yes ☑ No ☐ N/A ☐
	g.	Design considerations for anchoring the unit to prevent floatation (only for tanks situated in a seismic fault zone or saturated zone)? [3745-66-92(A)]		Yes ☐ No ☐ N/A ☒
	h.	Design considerations to ensure that the tank system will withstand the effects of frost heave (only for underground tank systems)? [3745-66-92(A)]		Yes ☐ No ☐ N/A ☒
NOTE: CO-DHWM Engineering staff are available to assist you with evaluation of the written assessment.				
15.	Are there written statements by those persons who supervised installation or certified design of the new tank system, that the tank system was properly installed and designed and that required repairs were performed? [3745-66-92(G)]			Yes ☑ No ☐ N/A ☐
	Do the written statements address all of the following:			
	a.	Inspection for damage and/or inadequate construction and installation was conducted? [3745-66-92(B)]		Yes ☑ No ☐ N/A ☐
	b.	Statement that deficiencies were corrected before the tank system was covered or put into use? [3745-66-92(B)]		Yes ☑ No ☐ N/A ☐
	c.	Proper backfilling? [3745-66-92(C)]		Yes ☐ No ☐ N/A ☒
	d.	Tightness test; if the tank system was found not to be tight, does the statement indicate that proper repairs were made? [3745-66-92(D)]		Yes ☐ No ☐ N/A ☒
	e.	Proper support and protection of ancillary equipment? [3745-66-92(E)]		Yes ☑ No ☐ N/A ☐
	f.	Supervision of the installation of field fabricated corrosion protection? [3745-66-92(F)]		Yes ☐ No ☐ N/A ☒
SECONDARY CONTAINMENT				
16.	Has secondary containment been provided? [3745-66-93(A)]			Yes ☑ No ☐ N/A ☐
NOTE: Secondary containment must be provided for tank systems that store or treat materials that become hazardous wastes within two years after the hazardous waste listing, or when the system has reached 15 years of age, whichever comes later. [3745-66-92(A)(2)]				
17.	Is secondary containment one of the following:			Yes ☑ No ☐ N/A ☐
	a.	An **External Liner**? [3745-66-93(E)(1)] If so,		Yes ☑ No ☐ N/A ☐
		i.	Is liner designed or operated to contain 100% of the capacity of the largest tank?	Yes ☑ No ☐ N/A ☐
		ii.	Is liner designed and operated to prevent run-on and infiltration or the collection system has excess capacity to contain run-on and infiltration from a 25-year, 24-hour storm?	Yes ☑ No ☐ N/A ☒ Ind. system
		iii.	Is liner free of cracks and gaps?	Yes ☑ No ☐ N/A ☐
		iv.	Does liner completely surround the tank and cover all earth likely to be contacted by waste during a release?	Yes ☑ No ☐ N/A ☐
		v.	Are chemically resistant water stops in place at all points? *(concrete liners only)*	Yes ☑ No ☐ N/A ☐

		vi.	Is there a compatible interior coating or lining to prevent migration of waste into the concrete? (concrete liners only)	Yes ☐ No ☐ N/A ☒
	b.	**Vault System?** [3745-66-93(E)(2)] If so,		Yes ☐ No ☑ N/A ☐
		i.	Is vault system designed to contain 100% of the capacity in the largest tank?	Yes ☐ No ☐ N/A ☐
		ii.	Is liner designed and operated to prevent run-on and infiltration or the collection system has excess capacity to contain run-on and infiltration from a 25-year, 24-hour storm?	Yes ☐ No ☐ N/A ☐
		iii.	Are chemically resistant water stops in place at all points?	Yes ☐ No ☐ N/A ☐
		iv.	Is there a compatible interior coating to prevent migration into the concrete?	Yes ☐ No ☐ N/A ☐
		v.	For **ignitable or reactive waste**: Is the vault system provided with means to prevent (or alternatively "protect against") the formation or ignition of vapors?	Yes ☐ No ☐ N/A ☐
		vi.	Is vault system provided with an exterior moisture barrier?	Yes ☐ No ☐ N/A ☐
	c.	**Double-Walled Tank?** [3745-66-93(E)(3)] If so,		Yes ☐ No ☑ N/A ☐
		i.	Is double-walled tank designed as an integral structure to contain any release from the inner tank?	Yes ☐ No ☐ N/A ☐
		ii.	If **metal**, are the primary tank interior and outer shell exterior surfaces protected from corrosion?	Yes ☐ No ☐ N/A ☐
		iii.	Is double-walled tank provided with a continuous leak detection system able to detect a release within 24 hours or at the earliest practicable time?	Yes ☐ No ☐ N/A ☐
	d.	**An Equivalent Device?** As described in 3745-66-93(D)(4) which has been approved by the director? [3745-66-93(D)&(E)]		Yes ☐ No ☐ N/A ☐
SECONDARY CONTAINMENT DESIGN/OPERATION/INSTALLATION				
18.	Has each secondary containment system been designed, installed and operated to prevent any migration of wastes or liquid to the soil, groundwater, or surface water and is it capable of detecting and collecting releases and accumulated liquids? [3745-66-93(B)(1)&(2)]			Yes ☑ No ☐ N/A ☐
19.	Does the secondary containment system meet the following minimum requirements of [3745-66-93(C)]:			
	a.	Constructed or lined with compatible materials of sufficient strength to prevent failure? [3745-66-93(C)(1)]		Yes ☑ No ☐ N/A ☐
	b.	Placed on a foundation or base capable of providing support? [3745-66-93(C)(2)]		Yes ☑ No ☐ N/A ☐
	c.	Provided with a leak detection system designed/operated to detect failure to primary or secondary containment or any release of hazardous waste within 24 hours or at earliest practicable time? [3745-66-93(C)(3)]		Yes ☑ No ☐ N/A ☐
	d.	Sloped or designed to drain and remove liquid resulting from leaks, spills or precipitation? [3745-66-93(C)(4)]		Yes ☑ No ☐ N/A ☐
	e.	Any liquid which accumulates in the containment unit resulting from spills, leaks or precipitation removed within 24 hours or in a timely manner? [3745-66-93(C)(4)]		Yes ☐ No ☐ N/A ☒
ANCILLARY EQUIPMENT REQUIREMENTS				
20.	Is ancillary equipment provided with secondary containment (such as			Yes ☐ No ☑ N/A ☐

	double-walled piping, jacketing or a trench)?		
	If not, is the ancillary equipment one of the following: [3745-66-93(F)]		
	a.	Above ground piping (exclusive of flanges, joints, valves and connections) that is inspected daily?	Yes ☑ No ☐ N/A ☐
	b.	Welded flanges, welded joints and/or welded connections that is inspected daily?	Yes ☐ No ☐ N/A ☒
	c.	Sealless or magnetic coupling pumps and/or sealless valves?	Yes ☐ No ☐ N/A ☒
	d.	Pressurized above ground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown and/or loss of pressure-actuated shut-off devices) that is inspected daily?	Yes ☑ No ☐ N/A ☐
TANK SYSTEMS FOUND TO BE LEAKING OR UNFIT FOR USE			
21.	Has there been a leak or spill from any tank system or has any tank system been found unfit for use? **If so**, did the o/o:		Yes ☐ No ☑ N/A ☐
NOTE: If the tank is found to be unfit for use, inspector should explain why.			
	a.	Immediately cease flow of material into tank and investigate the cause of the release? [3745-66-96(A)]	Yes ☐ No ☐ N/A ☐
	b.	Remove waste from tank system to prevent further release within 24 hours of detection or earliest practicable time? [3745-66-96(B)(1)]	Yes ☐ No ☐ N/A ☐
	c.	Remove all material released into secondary containment system within 24 hours or as timely as possible to prevent harm to human health and the environment? [3745-66-96(B)(2)]	Yes ☐ No ☐ N/A ☐
	d.	For a visible release to the environment, immediately conduct a visual inspection of the release? [3745-66-96(C)]	Yes ☐ No ☐ N/A ☐
	e.	For a visible release to the environment, prevent further migration of the leak or spill to soils or surface waters? [3745-66-96(C)]	Yes ☐ No ☐ N/A ☐
	f.	For a visible release to the environment, properly dispose of any visibly contaminated soil or surface water? [3745-66-96(C)]	Yes ☐ No ☐ N/A ☐
	g.	Report any release to the environment to the director within 24 hours unless it was less than one pound and was cleaned up immediately? [3745-66-96(D)(1)]	Yes ☐ No ☐ N/A ☐
	h.	For a release to the environment, submit a written report of the incident to the director within 30 days of the release? [3745-66-96(D)(3)]	Yes ☐ No ☐ N/A ☐
	i.	Remediate the spill and repair the unit prior to returning it to service? [3745-66-96(E)(2)]	Yes ☐ No ☐ N/A ☐
	j.	For a release from a tank system without secondary containment, did the o/o provide secondary containment meeting the requirements of 3745-66-93 for the unit prior to putting it back into service? [3745-66-96(E)(4)]	Yes ☐ No ☐ N/A ☐
NOTE: The requirements noted in 20.j. do not apply if the release was from an above ground component of the tank which can be inspected visually after being put back into service.			
22.	In the event that the repairs to the tank system were major (e.g., replacement of liner, repair of ruptured primary or secondary containment structure), did the o/o obtain a certification from a qualified professional engineer attesting that the repaired unit is capable of handing hazardous waste? [3745-66-96(F)]		Yes ☐ No ☐ N/A ☐
23.	Was a copy of the certification submitted to the director within seven days after returning the system to use? [3745-66-96(F)]		Yes ☐ No ☐ N/A ☐
24.	If the o/o was unable to repair and return the unit to service as described in		Yes ☐ No ☐ N/A ☐

	20.a through 20.e, was the tank system closed in accordance with 3745-66-97? [3745-66-96(E)(1)]		
25.	Does the o/o have a tank system **with a variance from secondary containment** from which a release has occurred but <u>has not</u> migrated beyond the zone of engineering control? **If so,**		Yes ☐ No ☑ N/A ☐
	a.	Has the o/o complied with 3745-66-96(A) through (F), except (D), and decontaminated soils? [3745-66-93(G)(3)]	Yes ☐ No ☐ N/A ☐
	b.	If soils cannot be decontaminated/removed, has the o/o complied with 3745-66-97(B)? [3745-66-93(G)(3)]	Yes ☐ No ☐ N/A ☐
26.	Does the o/o have a tank system **with a variance from secondary containment** from which a release occurred and <u>has</u> migrated from the zone of engineering control? **If so,**		Yes ☐ No ☑ N/A ☐
	a.	Has the o/o complied with 3745-66-96(A) through (D), prevented migration, and decontaminated soil? [3745-66-93(G)(4)]	Yes ☐ No ☐ N/A ☐
	b.	If soils cannot be decontaminated/removed, or if the groundwater has been contaminated, has the o/o complied with 3745-66-97(B)? [3745-66-93(G)(4)]	Yes ☐ No ☐ N/A ☐